THE

Lumleian Lectures

ON

THE DIGESTIVE FERMENTS, AND THE PREPARATION AND USE OF ARTIFICIALLY DIGESTED FOOD.

Delivered before the Royal College of Physicians,

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LECTURE III.—PART III.

NUTRITIVE VALUE OF PEPTONISED FOOD.

AT the outset of this inquiry we are met with the question, Is it certain that the ultimate products of digestion are of equal nutritive value to the mixed transitional products which are produced in succession, and probably absorbed as the food is gradually transformed in the alimentary canal? in other words, are maltose and peptones alone as valuable to the economy as a mixture of these substances with the several dextrines and hemipeptones which are presented to the absorbent surfaces in the course of natural digestion?

With regard to the products of starch-digestion, no direct experiments have been made on the nutritive value of maltose, and we can do little more than conjecture that the intermediate dextrines have a usefulness of their own. That they are absorbed seems proved (as might have been expected from their known diffusibility), for they have been detected in the blood, and especially in the blood of the portal vein.

With regard to peptones, we have more information. It was naturally assumed by the earlier observers who identified peptone as the chief ultimate product of digestion that this was the form under which proteids were taken up by the absorbents, and introduced into the blood for the nutrition of the tissues. But some ten years ago doubts were cast on this conclusion. It was alleged by Brücke and Voit that the nutrition of the tissues was maintained not by peptone, which was unfitted for this purpose, but by soluble albumen, which was absorbed in the undigested state from the *primæ viæ*, and that the office of peptone was a subordinate one, resembling that of gelatin, and consisted in aiding to preserve the tissue-albumen from too rapid destruction. Direct observations on the nutritive value of peptones have, however, shown this paradoxical view to be untenable. As the point is one of importance, I will endeavour to lay before you the proofs which have been already adduced of the food value of peptones, and I will supplement these by some observations by myself.

P. Plosz[1] was the first to put this question to the test of direct experiment. He fed a puppy dog, weighing 1302 grammes, with an artificial compound made of fat and sugar, in imitation of milk, but in which the casein was replaced by artificially-digested fibrine. In the course of eighteen days of this diet the dog grew and increased 501 grammes in weight.

R. Maly[2] performed a similar experiment on a pigeon. He first fed the pigeon for several days on a regulated quantity of wheat until he had ascertained the quantity requisite to keep the bird in a state of nutritive equilibrium, in which it neither gained nor lost weight. He then made an artificial corn from starch, fat, gum, salts, and water, but in which the gluten was replaced by fibrine-peptone, and fed the pigeon with the same quantity of this artificial corn as he had before given of the natural corn. Under this novel diet the bird, after a short apprenticeship, not only maintained its weight, but actually put on flesh. This experiment seemed to show that peptone was even superior to natural gluten as a nutriment.

It was, however, objected to these experiments that they did not rigorously prove that peptone could build up the tissues, inasmuch as the increase of weight might have been due to an excessive accumulation of fat or of water, and that there might have been not an increase, but a decrease, of the structural elements which contained nitrogen.

To meet these objections, Plosz and Gyergyai[3] instituted a third set of experiments on a dog weighing 2753 grammes. He was first brought down by a diet of simple water to a weight of 2531 grammes. He was then fed on a mixture composed of sugar, starch, and fat, and containing, in addition, five per cent. of purified peptone. Of this mixture about 400 grammes were daily administered to the animal for a period of six days. In these six days the dog took in with his food 14·45 grammes of nitrogen, but the total of the nitrogen excreted by the urine and fæces only amounted to 13·46 grammes, so that nearly one gramme of nitrogen had been retained in the body of the animal, which had increased in weight 239 grammes. This experiment went to prove that peptone served to repair the wear and tear of the nitrogenised structural elements, and even contributed something to the increase of weight.

Adamkiewiez[4] by a still more rigorous method, in a laborious series of experiments on a dog, which was fed on a diet wherein the only possible source of nitrogen was peptone prepared from blood-fibrin, arrived at the conclusion that peptone supplied nitrogen to the solid tissues, and that it possessed a nutritive value equal to albumen, or even slightly superior; and that therefore it could not be looked on as a bye-product of digestion, but as the chief resultant of the transformation of proteids in the alimentary canal.

The experiments above cited seem sufficient to settle definitely the question raised by Brücke and Voit, and to establish the nutritive value of peptone as a source of nitrogen to the tissues. It seemed, however, desirable to obtain direct proof of the nutritive value of peptonised milk as compared with the natural article. My observations led me to the conclusion that it was far easier to get a supply of peptonised aliment suitable for invalids by the artificial digestion of milk by pancreatic extract than by any other method. But in so important a matter as the feeding of invalids, inference and conjecture seemed hardly a sufficient basis for actual practice.

The questions I proposed to myself were—(1) Is artificially digested, or peptonised, milk alone sufficient to sustain nutrition? and (2) is it as efficient in this respect as natural milk? For the purpose of answering these questions I procured four kittens, of the same brood, eight weeks old. Kittens at this age thrive perfectly on an exclusively milk diet. Two of the kittens were fed on natural milk, and the two others on milk previously digested by pancreatic extract. The digestion of the milk in the latter case was carried out to full completion—that is to say, until the milk became greyish and bitter, and no longer gave any precipitate with acetic acid, nor even with nitric acid. The animals were permitted to have as much of their respective foods as they could consume. The experiment was continued for a period of twenty days. The quantity consumed by each pair was as nearly as possible the same. All four continued in perfect health, and took their nutriment greedily. I was surprised to find that the pair fed on peptonised milk showed no repugnance to the bitter taste of their food, but appeared to relish it quite as well as their companions did their natural milk. The following table exhibits the gain in weight at the end of twenty days by each of the four kittens. The weights are given in grammes, and in round numbers.

Diet.	Initial Weight.	Weight at the end of 20 days.	Increase of Weight.	Increase of Weight per cent.
Natural milk ...	No. 1—338	514	176	52
	,, 2—558	838	280	50
Fully peptonised milk	,, 3—403	626	223	55
	,, 4—374	562	188	50

The table shows that the percentage increase of weight was very nearly alike in all four animals. No difference could be perceived in the sleekness of their coats nor in the vivacity of their gambols. The experiment proves that

[1] Pflüger's Archiv f. d. ges. Physiologie, 1874, s. 323. [2] Ibid., s. 585. [3] Pflüger's Archiv, Bd. x., 1875, s. 536. [4] Natur und Nahrwerth des Peptons. Berlin, 1877.

peptonising the milk in no degree spoils its nutritive value. It also shows, as might have been expected, that in healthy animals with abundance of digestive power there is no advantage to be gained from the administration of food in a predigested state. The quantity of food which is taken and absorbed appears to be regulated, not so much by the quantity which can be digested as by the quantity which can be assimilated. This experiment had an interesting sequel. After Nos. 3 and 4 had been fed on *fully* peptonised milk for a period of twenty days, they were fed for a period of ten days on *partially* peptonised milk. By using a less quantity of the pancreatic extract in proportion to the milk, and by allowing the process of artificial digestion to go on for not more than half the time allowed in the previous experiment, only a partial conversion of the casein was effected. As nearly as I could judge by the precipitate caused with acetic acid, the casein was digested to about the extent of one-half. Under these circumstances I certainly expected that Nos. 3 and 4 would gain weight as before, and would continue to thrive as well as Nos. 1 and 2. It might have been anticipated that under these new conditions the proper digestive powers of Nos. 3 and 4 would come into play, and complete with ease the unfinished work of the artificial process. But events did not pass exactly as I anticipated. The annexed table shows the actual results. The weights, as before, are given in grammes.

Diet.	Initial Weight.	Weight on third day.	Weight on fifth day.	Weight on seventh day.	Weight on tenth day.
Natural Milk	No. 15—514	551—gain 37	570—gain 19	593—gain 23	618—gain 25
	,, 2—838	900—gain 62	936—gain 36	993—gain 57	1063—gain 70
Half-peptonised Milk	,, 3—626	693—gain 67	687—loss 6	681—loss 6	693—gain 12
	,, 4—562	645—gain 83	638—loss 7	648—gain 10	683—gain 35

No interval was allowed to elapse between the two sets of experiments, so that the initial weights in the second set are the same as the terminal weights in the first set. The abrupt alteration in the diet of Nos. 3 and 4 produced a marked disturbance in their nutrition. But there was no declension in their general well-being, and they continued to take their modified diet with the same avidity as before. In the first three days Nos. 3 and 4 showed an unusual increase of weight—an increase quite out of proportion to that of their companions. Then came a check; in the next four days they not only showed no gain, but showed even a slight loss of weight. In the last three days they began to gain weight again, and were evidently recovering from the temporary check caused by their change of diet. The explanation of this series of events which has presented itself to my mind is the following, but I by no means wish to lay stress on its accuracy. It seemed as if the enforced rest imposed on the digestive organs for a period of twenty days, during the use of fully predigested food, had temporarily diminished their natural vigour—just in the same way as the disuse of a limb diminishes for a time the strength of its muscles. During this first period, immediately following the change of diet, the unemployed digestive powers were suddenly called upon to resume their wonted activity; but, owing to their enfeeblement from disuse, they were unable to respond to the call with due promptness, and undigested materials accumulated in the intestine. This accumulation accounted for the unusual increase in weight during the first period. During the next period the digestive embarrassment made itself felt, and gave a check to the processes of growth and nutrition, and the animals ceased to grow and gain weight. During the last period the temporary enfeeblement of the digestive organs was passing away, in proportion as renewed exercise was restoring them to their original vigour, and growth and increase of weight again commenced.

Whether this explanation be trustworthy or not, the lesson indicated by it is probably a true one—namely, that, except in extreme cases, when the digestive power is wholly lost or in complete abeyance, it is more advantageous to use a food which has been subjected to partial artificial digestion than a food in which the process has been carried out to completion. If the patient possess any digestive power at all, it is better that that power should be kept in exercise than that it should be permitted to deteriorate still further from total disuse. This is in agreement with the rule we apply in other cases of enfeebled function, according to which we endeavour to combine partial rest with moderate exercise.

JAMES DEWAR, F.R.S., has been reappointed Fullerian Professor of Chemistry at the Royal Institution.

TEWKESBURY RURAL HOSPITAL.—New wards and offices, comprised in a new wing, are about to be added to this building through the liberality of Mrs. Townend, of Puckrup Hall, who has placed £2000 at the disposal of the governors of the hospital for the purpose. The addition will be called the "Townend wing."

Clinical Lecture
ON
THE INFLUENCE OF VARICOCELE ON THE NUTRITION OF THE TESTICLE.

BY J. C. OGILVIE WILL, M.D., F.R.S.E.,
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GENTLEMEN,—You have heard that in this case the varicocele which had resulted from an injury to the man's left testicle was of great size, and that the nature of the swelling could be diagnosed without even the slightest manipulation of the parts; for the contour of the enlarged veins, and even their blue colour, were both seen through the scrotal walls. You have also learnt, from the clinical record of his case which I read to you, that the testicle of the affected side was so wasted that it had entirely lost the form usually presented by that organ, and that it seemed to be a mere appendage to the diseased veins to which it was attached. The effect of varix of the spermatic veins upon the nutrition of the testicle is a matter of dispute, some writers holding that its presence does not in any way endanger the integrity of the testis, while others aver that the presence of varicocele and the proper performance of the function of the organ in question are incompatible. Under these circumstances it seems unadvisable to speak dogmatically. I shall therefore lay before you some of the opinions advanced by those whose conclusions are, from the positions they occupy, or have occupied, worthy of our careful consideration. The first is that of one of the greatest of British surgeons, Sir James Paget, who in his recent "Essays" states that "there are some to whom, whether through ignorance or misguidance or hypochondriasis, a varicocele is a source of misery and dismay. They look upon it as a forerunner of impotence and of wasting testicles, and I know not what besides. All such fears are groundless. Varicocele is troublesome, because of the sense of weight which sometimes, though far from always, attends it, and which is much increased by long standing or walking. In some cases, too, the dilated veins, like varicose veins in the leg, are apt to become inflamed or very sensitive. But this, I believe, is the widest extent of the harm that a varicocele ever does. I do not believe that it ever produced wasting of a testicle, or impotence, or any such thing." This opinion is satisfactory in one way, at any rate—it is decided enough; but *audi alteram partem* before you rush to a hasty conclusion. Mr. Curling, whose work on "Diseases of the Testicle" holds the first place not only in this country, but elsewhere also, from which the following is a quotation, views matters in a different light. "Varicocele," he writes, "tends

gradually to impair the nutrition and diminish the secreting powers of the testicle, hence the importance of not neglecting this complaint, though it may produce no painful symptoms. A softening and partial atrophy of the gland, coexisting with varicocele, has come under my notice in numerous instances; indeed, in nearly all the cases in which there was a decided dilatation of the spermatic veins on one side only, the testicle on that side was the smaller of the two." Now, gentlemen, it is utterly impossible to reconcile these two statements, and, mark you, both statements of honest men and accurate observers, and if we go further we find the same discrepancy. Sir Astley Cooper wrote that "varicocele should scarcely receive the title of a disease, for it produces in the greater number of cases no pain, no inconvenience, and no diminution of virile powers," and Professor Humphry of Cambridge has stated that "this affection is rarely productive of any decidedly injurious effect upon the testicle or upon the character of its secretions," while Mr. Barwell, who has had a large experience of such cases, believes that the "testicle from which the varicocele springs is not of much use." Mr. Henry Lee has placed a case upon record in which the testicle had nearly wasted away; and Gosselin reported a case which undoubtedly proves that the testis may waste and that its functions may be destroyed by varicocele. He had a patient the veins of whose left cord were varicose, the testicle of that side being one-third smaller than that of the opposite; an attack of epididymitis supervened on the right side, and on examination of his semen no spermatozoa were found. Mr. Percival Pott met with three cases of varicocele where the testicles were so wasted as to be scarcely perceptible. Mr. Jonathan Hutchinson takes a totally different view of the whole matter, for he has stated that "the generative function being arrested by central nerve disease, the glands which minister to that function waste, the nutritional innervation of the testes and of their vessels is disturbed, the arteries shrink, and the veins dilate." There are, however, several powerful arguments against the acceptance of this view; to one of which I shall now allude, and which seems to me to be of itself sufficient to invalidate the assumption referred to. It is the effect produced by radical treatment of varicocele upon the condition of the testis. Many surgeons have found, and I include myself among the number, that after operation the testicle gets firmer and larger, and that it may ultimately become of normal size. Mr. H. Lee met with two cases in point which seem to be conclusive: for in the one the gland of the affected side had nearly wasted away, and eleven months after operation it was nearly of normal size; in the other the testicle was so pendulous and loose that it hung towards the outside of the left thigh when the patient was recumbent; sometimes after operation the parts had regained their usual appearance. Mr. Barwell not long since published a paper in THE LANCET, in which he stated that in each one of the thirty-two cases where he had operated the testicle of the affected side was flabby and wasted, but "in every case the testicle has begun to resume its size and hardness soon after operation. Those that returned to observation after a year or more were found to have recovered normal condition except one. Two cases I saw after five and after seven years. The former had had, through bad habits, a double varicocele; the testicles, previous to operation, were very small and soft; he was pretty nearly emasculate: now the organs are firm, healthy, and of normal size. The other, seen after seven years, had become the father of two children, stated to be strong and healthy."

The reconciliation of the different views held by those writers of repute is a task which I confess my inability to accomplish. The fact, however, remains that in our present case the varicocele was attended by atrophy of the testicle, and I may tell you that during the past few years I have seen not a few similar cases. One other fact is perhaps worth bringing before you in connexion with my personal experience—viz., that in all the cases where the varicocele has been a large one the history has pointed to a traumatic origin. It is quite possible that this may have been a chance occurrence; but when one finds such great divergences of opinion among writers of note, a point such as this may not be without meaning; for is it not just barely possible that those who support the non-wasting glandular view may have been referring to varicoceles arising from sexual derangements, which are often almost stationary, and very frequently almost innocent of injurious effects so far as the nourishment of the testicle is concerned?

I have dwelt at length on the possible effect of spermatic varix on the nutrition of the testis, as it has a very important bearing on the treatment which should be adopted; for if it be, as some hold, a condition of no moment, and one that is absolutely harmless, all operative measures for its radical cure should be at once consigned to oblivion. But if varicocele is capable of interfering with the due nourishment of so important a structure as the testicle, then we must regard radical treatment from a very different stand-point. From a not inconsiderable experience of such cases I may tell you that I am of opinion that many writers have spoken dogmatically where dogmatism is inadmissible, for although I believe that in the great majority of cases the best mode of treatment that can be prescribed is the establishment of proper sexual relations, yet I feel satisfied that cases do frequently occur for whose relief radical treatment is absolutely called for. You must therefore be guided in great measure by the extent of the disease; and, without drawing any hard and fast line, I would suggest the following conditions as those where you should resort to operative interference after you have given palliative treatment a fair and prolonged trial:—1. If the varicocele be very large, or increasing. 2. If the testicle is atrophied. 3. If acute pain be complained of, as in our present case. 4. If the patient be disqualified from entering the public service. 5. If the stability of his mental faculties be endangered. This last condition is not a mere fanciful one, and is met with oftener than you would expect. But let me not be misunderstood—I would not advise you to operate in those cases unless there be real and well-marked mischief; you must not permit yourselves to be led by the mere desire of a patient, who suffers from slight varicocele, for an operation; but you should explain to him as fully as necessary the comparatively innocuous nature of the affection of which he complains, and tell him that if it should increase, or be attended by any manifest ill effects upon his generative functions, you will be prepared to comply with his wishes at some future time. This expresses my meaning, with the addition of the proviso that I think you may allow yourselves greater latitude in the direction of operation in those cases where the thoughts of the patient are concentrated—often to the exclusion of all others—upon the supposed serious malady from which he is suffering, than in those where the patients are willing to accept your assurance that slight varicocele is an affection of but little significance or importance.

ON A CASE OF HYDROPHOBIA.

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HYDROPHOBIA is comparatively a very infrequent disease. Although associated with the London Hospital for twenty-seven years, I had never seen a case until the one now reported came under my care. The case is interesting as showing that it could not have arisen from mere emotional excitement, and that the protection of the clothing in the bite has at all events the effect of delaying, if not of preventing, injurious results. Moreover, there is reason to believe that a diagnosis of rabies in the animal that inflicted the wound was correctly made. The patient was a dock labourer, twenty-three years of age; a very robust, unemotional-looking man, but with fair intelligence.

On February 2nd, 1880, the man was playing with his Newfoundland-retriever dog, when the dog bit his thumb and index finger. It bled freely, but no notice was taken of it. It healed, and caused no anxiety until the morning of the 25th April, the day of his admission into the hospital. The dog had also bitten a strange boy in the arm, through the lining of his coat, about five weeks before the patient was bitten, and the wound was cauterised. It often snapped at people, and on the 2nd February the dog bit the brother of the patient through his trousers and stockings; the wound, like that of the patient, was poulticed, but not cauterised. The day after the dog wandered away from home, and was ultimately found by a friend in a deplorable condition, as if ill treated. It was taken to a veterinary

surgeon, who, suspecting rabies, poisoned it. The dog had previously been noticed to have attacks of spasmodic shortness of breath.

The first indications in the patient were spasms produced by attempting to wash himself, and inability to take his breakfast. He also had "rheumatic" pains in his right arm.

I am indebted for the following notes to my house-physician, Mr. Havens, who most assiduously assisted me in watching and treating the case:—

The patient, Alfred M——, was first seen at 11.30 P.M. on Sunday night in the receiving-room, and was then sitting on the couch, with his body flexed, holding his head downwards, evidently in a state of low despondency with more or less general tremor, and occasional paroxysms of dyspnœa especially when spoken to. His eyes looked bright and excited, and impressed one with a peculiarity that is not often observed. Pupils were dilated a little. Reflex sensibility was very marked, as the mere putting a thermometer into the axilla excited a convulsive seizure and catch of breath, as if something very cold had been applied to the naked body. Heat of body registered 101·4°. He was rational and could answer questions, but with a sense of fear as a spasm was produced by any attempt at speaking or thought of liquids. Before, however, he was led away to the ward, he asked for some water to be put into his hand in order that he might lap it up. This was done, he holding his arm and hand out and head turned away, and then quickly made an attempt to convey the same to his mouth, when a severe spasm seized him, causing him to stand and make a sudden dart forward in a falling attitude, which made me start likewise. At this time he was held steady by two attendants, one on either side, and re-seated again on the couch, the poor fellow beating his chest just over the mid sternum with his hand doubled as if oppressed there. When asked if in any pain he replied that he felt rheumatic pains all up the right arm, pointing from the fingers upwards to the shoulder.

April 25th.—12 o'clock: Patient was again visited a few minutes after being taken to the padded room, and seemed apparently quieter; but the sight or thought of water or milk excited a spasm, with cessation of the respiratory function, accompanied by flushing of the face, lasting about from between half to three-quarters of a minute, and then followed by a long, deep, forcible expiration, which might appear to correspond to the bark or growl of a dog, so frequently supposed to occur in such cases. The draught caused by placing the bed coverings over him sent him into paroxysms of dyspnœa. As seen later on, he was having a succession of minor clonic spasms, increased by any external influence. Could not for a time get him to look at any liquid. His eyes were wild, staring, and wandering; pupils not apparently now much affected. Face flushed, and countenance expressive of excitability and fear. He would every now and then arch his body by turning over on to his back, and raising the chest and striking it with his right hand principally, a spasm occurring at the time. Being questioned, said he felt a tightness over the chest, smiling and speaking good-temperedly. Tongue was thickly covered with white fur, and rather flabby looking.

Commenced the treatment with one-third grain (two minims) of acetate of morphia, hypodermically (ten grains to one and a half drachms of water), although the urine contained about one-sixth part of albumen, with not the slightest effect. This was followed in about half an hour by half a grain of same solution, with still the same result. On persuasion, patient made an effort to drink a little milk, with the usual sequence.

26th.—1 A.M.: The spasms are becoming more frequent and severe, occurring about every two, or less, minutes. Ordered now (1.30 A.M.) half-drachm doses of potassic bromide and chloral hydrate as a draught, with apparently no relief. This was repeated at two o'clock with a little benefit, as far as one could judge. Spinal ice-bag (Dr. Chapman's) and iced water-cap were applied with some amount of comfort, as expressed by patient himself, he saying that he felt more "easy and comfortable."—3 A.M.: Patient not really any better. A drachm of chloral hydrate was alone given, which quieted him, he seeming to doze, and the spasms becoming less frequent and less severe. 5 A.M.: Drank—or I should say was given—some milk, as the above draughts as well as eight ounces of milk previously had to be poured down his throat, whilst patient held open his mouth, and making a great effort to swallow. The night attendant going off duty at six o'clock on the 26th reported patient as better and quieter, his eyes being less wild-looking and face less flushed. —10 A.M.: This morning patient certainly is looking more composed, and talks as if he were quite well, with the exception of slight spasms of the glottis. He expresses himself as "feeling fine." The convulsive attacks are slight as compared with those of last night, a good but varying interval intervenes, quite fifteen to twenty or more minutes. Temperature 100·6°; pulse 100, full and regular; respiration 20. Tongue deeply covered with white fur and protruded in a tremulous fashion, and three small pinkish vesicles about the size of a pin's head were observed on the under surface of the tongue, and might possibly correspond to lyssa.—11 A.M.: The paroxysms of dyspnœa are again returning, so ordered drachm doses each of bromide of potassium and chloral every two hours until some change. —2 P.M.: Patient only had two doses of the chloral and bromide, as it made him "feel silly and confused, he not knowing where he was for a time, and attempting to get up and walk found his legs gave under him."—3.15 P.M.: Patient is looking pulled down; eyes a little sunken and dark around; appears agitated in mind, turning his eyes upon different persons and things; would delay and hesitate in giving one an answer. Remains lying down; spits occasionally in a vessel provided for that purpose; took some milk in a medicine glass with but little difficulty.—9 P.M.: Has dozed for about a quarter of an hour at a time during the latter part of the afternoon. Been tolerably free from the spasms until eight o'clock this evening. Has taken nearly a quart of milk and four or five ounces of beef-tea. Temperature 100·2°; pulse 110; respiration 20. Has just taken some milk, it being poured into his throat from a feeder, without setting up much spasm.—9.30 P.M.: Soon after gave him half-drachm dose of chloral and bromide.

April 27th.—12.50 A.M.: Patient has been quiet since eleven o'clock. Has eaten half a slice of dry bread, and taken four ounces of milk. Spasms occurring about every fifteen minutes, the last, however, being half an hour since. This last note was obtained from the porter in charge. As seen now—one o'clock—he is lying quietly on his right side apparently asleep. Has thrown off the ice-cap. Breathing seems quiet and uninterrupted at the time of making this note. 5.15 A.M.: Patient, who has remained quiet, dozing at intervals from 12.50 to 4.15 A.M., when the spasms were renewed, is now looking in an excited and disturbed condition, with bright staring eyes and flushed face, tells one that he has "done for himself now" by putting his hands into water to have a wash, and, being seized with stoppage of breath, became frightened and called out to the night porter, as he "thought he was going to be suffocated." Now the convulsive attacks were very severe and painful, judging from patient's appearance, who becomes purplish in the face, and throwing himself into contortions. 5.50 A.M.: The attacks somewhat abated in severity, and came on at irregular periods; administered half a drachm dose each of bromide and chloral. Pulse 120, full and bounding. 10 A.M.: Patient still more agitated and wild-looking, passing into a maniacal condition. Has set his mind against the day male attendant, an old but imposing man. Has knocked off the ice-bags, &c. Keeps incessantly spitting up thick viscid mucus all over the room, and saying, "I am going to die in a moment," "They have done for me," "Let me die," "No, I won't yet," and so on many such words. Absolutely refused any liquid or solid. Between 11 and 12 o'clock patient has become more violent, approaching a maniacal outburst; standing up, having delusions, and telling every one to get away from him in a firm tone of voice. On the contrary, he is very docile and agreeable with the medical attendant, shaking hands with him, and saying he is a gentleman every bit of him; other people he railed against. At length he pushed his way out of the padded-room, and had to be taken back by force, he evidently intending to make his escape. After being held and restrained for about fifteen or twenty minutes he became quieter. Before he had this furious delusion chloroform was inhaled with great difficulty, it almost asphyxiating the patient, and was therefore discontinued before he was completely got under. The spitting and vomiting of bile-stained secretion continued through the morning. Will take no nourishment. Is walking about and rambling. 2 P.M.: Patient again visited in padded-room in a maniacal state, with periods of consciousness and self-reasoning. Had strait-

BEST COPY AVAILA

jacket applied in order to keep him quiet. Before this was done from five to ten drops of nitrite of amyl were tried by way of inhalation, but with no appreciable result. More chloral and bromide tried, but could not be got to remain in stomach, as he vomited it all up again. 6.50 P.M.: Patient is lying on his right side, constantly abusing all around him, and spitting and vomiting bile. Injected now hypodermically three minims (one-third grain) of curara into leg; patient making violent muscular efforts, &c.—7.20 P.M.: The same dose repeated in left thigh. Had an enema of concentrated beef-tea.—7.50 P.M.: Another one-third grain injected, with no apparent effect, patient being very suspicious that it was poison to kill him.—8.20 P.M.: Again, one-third grain injected hypodermically. There was apparently less power in the limbs, as his resistance to the injection was less forcible than on the three previous occasions. The incessant delirium and spitting continue, yet he seems cognisant of what is going on around him; keeps calling out every now and then for his mother and father to come to him, and for them not to leave him. He tries to make his friends believe that he has been badly used and killed. Begins now to take a dislike to and not to know his parents.—8.30 P.M.: Had another enema of beef-tea.—9 P.M.: Repeated curara, one-third grain. Had become much quieter, but could move his limbs a little. 9.50 P.M.: Patient became asphyxiated; artificial respiration performed for twenty minutes, with scarcely any benefit; patient dying, with very suffused eyes and lips and face intensely congested.

Post-mortem, April 28th.—Body well developed; muscles well nourished. Extreme lividity of lips and face. Conjunctivæ extremely suffused, "a bloodshot appearance." Mucous membrane of pharynx extremely venously congested, and the glosso-epiglottidean folds also. Mucous membrane of larynx, trachea, and bronchi extremely congested, and coated with blood sero-mucus. Lungs the colour of Burgundy wine, oozing from the dark vessels black pitchy-looking blood, and a few black masses resembling pulmonary apoplexy, excepting that they did not sink in water. Heart: Pericardium normal; left ventricle firmly contracted; muscle and valves healthy. Liver normal, homogeneous on section, such as seen in cases of rapid death. Spleen venously congested, but not softened, as in cases of acute disease with pyrexia. Kidneys venously congested. Spinal cord: Spinal membranes bright, and free from any signs of acute change; œdema to the extent of serum collected in vertebral canal; a congested appearance of the grey matter, and the white matter of cord bulges on section; is soft and evidently œdematous, much too wet. Brain healthy, but venously congested.

THE DISEASES OF THE EYE OCCURRING IN CONNEXION WITH PREGNANCY.

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(Continued from p. 711.)

I DO not suppose that pregnancy can have any influence in causing obstruction of the canaliculi, lachrymal sac, or nasal duct; but when either of these conditions is present inflammation of the sac and lachrymal abscess is apt to occur. This is probably attributable to the general debility of the patient, to want of exercise, to the confined bowels from which many women suffer at this time, and perhaps also to being confined for many days together in close, ill-ventilated rooms, which collectively render the patient liable to cold. The treatment, of course, in no respect differs from the ordinary proceedings: in the early stages poultices and leeches locally, and purgatives internally; in the later stages opening the abscess, the passage of a probe through the divided canaliculus, and the administration of quinine, iron, and wine, will accomplish all that can be done.

The following case constitutes, I think, an example of a group, many examples of which have fallen under my care. Mrs. F——, aged thirty, married ten years; has had five children, aged eight, six, four, two, and an infant of eight weeks. Has always had some lachrymation of the left eye, and was under my care some years ago for hypermetropia. A pallid, short woman, pulse frequent and small, lungs affected with tubercle; is much debilitated after her confinements. Is now nursing her baby. Her left eye began to discharge matter a fortnight after her confinement, and the day after she had been out for a short distance. The inflammation increased, and a large abscess formed at the inner canthus of the left eye. She could not sleep at night for the pain, and the whole side of her face became inflamed and erysipelatous. The abscess burst in the third week after its commencement, and she is now very blanched and debilitated, passes restless nights, and has but a very moderate supply of milk for her infant. Quinine and a little wine were ordered for her, but nothing was done for the eye, as the active stage had passed, and it was only thought necessary to tell her that the canaliculus should be slit up at some future period.

I believe, though it is difficult to bring any cases to support the statement, that frequent pregnancies occurring in a woman of somewhat feeble constitution tend to the development of cataract. I have met with several cases where the patient having had many children whilst still comparatively young (say forty), has noticed impairment of vision, becoming worse during each successive pregnancy, and ultimately developing a perfect but soft cataract in one or both eyes. Of course, this may be attributable to other causes, but I have thought I could trace a connexion between the two.

And now in regard to the affections depending on lesion of the nervous system or implicating the nervous apparatus of the eye generally. These may be divided into two groups, the intra- and the extra-ocular: the former affecting the retina or peripheral termination of the optic nerve, and the latter affecting the optic nerves, chiasma tracts, and central ganglia. The former group—that is to say, the affections implicating the retina—are almost limited to cases of albuminuria, though perhaps occasionally hæmorrhages may occur without albumin being recognisable in the urine. My friend M. Galezowski informs me that he has seen cases of hæmorrhagic glaucoma as well as of miliary hæmorrhages unconnected with albuminuria in pregnancy; but these must be very rare; I at least have seen no instances of such diseases. That group of affections that occur in pregnancy which is more or less intimately associated with the appearance of albumen in the urine is one of great interest. Some, though by no means all writers, consider albumin to be of common occurrence in the urine of pregnant women, especially during the last weeks, and this phenomenon is not then to be regarded in so serious a light as it is held to be under ordinary circumstances, but to resemble rather those transitory conditions which are well known to physicians as occurring in convalescence from scarlet fever. In that case it is due probably to the desquamation of the epithelium of the renal tubules, since it disappears as the epithelium is renewed. It is not easy to give a satisfactory explanation of the etiology of its appearance, and various causes have been assigned. Amongst others, it has been attributed to an excess of albumin in the blood, or rather, perhaps, it should be said, to an excess of imperfectly-assimilated albumin; or, secondly, it may result from unusual blood-pressure, which may either affect the system at large or be limited to the renal vessels, in the latter case resulting from the pressure of the enlarging uterus on the renal veins; or, thirdly, it may be due to the pressure of the uterus on the ureters; or, lastly, to inflammatory conditions of the kidney or urinary passages, which may be either primary or secondary. Thus Spiegelberg attributes the presence of albumin in the urine during the later months of pregnancy to catarrh of the lower part of the urinary passages, though still admitting that it may be due to a change in the composition of the blood, and to direct transudation into the tubuli uriniferi. Neither of these explanations is quite satisfactory, though some arguments may be advanced for each. The most rational view to my mind is that the albuminuria is due to congestion of the renal vessels, the consequence of a double duty being imposed upon the kidneys, for they have to eliminate not only the effete materials of the mother, but also those of the child. Now, the activity of all disintegrating changes in young and rapidly-growing tissue is well known, and were oxygen freely supplied to the fœtus, the disintegration would probably be greatly increased. But it must be remembered that it receives its oxygen, so to speak, at second-hand, and the tissues and organs are not

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so completely burned off or reduced to so low a plane as occurs in the healthy adult, and it is to the inability of the kidney to eliminate these products, as well as to the greater demand made upon its secretory activity by the larger amount of effete matters in the blood of the mother, that the congestion of its tissue is owing—a condition that is intensified by the pressure of the uterus, and of the contents of the bowels if any constipation be present, upon the renal veins and ureters. The period at which the albuminuria occurs is in accordance with this view, for it is most commonly observed towards the later months of pregnancy, and it is at the later period of pregnancy that complaints of amblyopia are generally made.[1]

Whatever may be the cause of the albuminuria, it is noticeable that the vision is not necessarily impaired because the urine is albuminous; and, on the other hand, that the physical changes observed in the retina in albuminuria may sometimes be present in pregnant women without albumin being present in the urine, though its absence may perhaps only be temporary; and if the examination of the urine were made sufficiently frequently and carefully, it would probably generally be found. Lastly, considerable lesions of the retina and optic disc may exist without the impairment of vision being so marked as to attract particular attention on the part of the patient.

I need not give in detail the symptoms of albuminuria, for they are well known; but I would observe that, when the eyes are affected, intense headache is or has been present. The vision sometimes fails rapidly—within a day or two; at other times it is slower, and is only noticed in comparing the vision from week to week.

The physical changes observed under the ophthalmoscope are cloudiness of the media, probably from effusion into the vitreous, and those changes in the retina which are characteristic of albuminuric retinitis—engorgement of the veins, optic neuritis, or peripapillary serous infiltration, hæmorrhages, and exudations. The hæmorrhages may be mere round spots, or may present the form of large blotches. The exudations appear as white spots or plaques, often very minute, and arranged radially in considerable numbers around the posterior pole of the eye, and having their seat, according to the recent investigations of Fayer, beneath the fibrous layer of the retina.

The prognosis of hæmorrhages and exudations on or in the retina during pregnancy must depend essentially on their cause. If due to degeneration of the kidney, which has only been intensified by the supervention of pregnancy, puerperal eclampsia and a fatal issue may be anticipated; but if the albuminuria be of a functional character or consequent upon pressure on the ureters, we may with some confidence venture to give a favourable forecast, and to cheer the patient with the promise that all trouble will pass away after delivery. In fact, Litzmann (quoted in Braun) reports a case in which uræmic symptoms occurred in nine successive pregnancies under the severe forms of convulsions and temporary amaurosis, the patient recovering in the intervals. There can be no doubt that pregnant women may recover from conditions of the system accompanied by the symptoms of albuminuric retinitis that would be regarded under ordinary circumstances as of the most serious nature. The following case is particularly interesting in this point of view, because I took a sketch of it at the time, and on writing to the practitioner who originally attended her I have obtained recent information in regard to her condition.

Mrs. C—— was sent to me July, 1875, by Mr. H. Maturin, of Winchfield. She was forty-two years of age, and had had fifteen children, the last one being born six weeks previously to my seeing her. She noticed that her vision failed considerably for about a fortnight before her confinement, objects becoming indistinct, hazy, and distorted. Both eyes were affected. She appears to have paid little attention to her state. Her confinement was attended with severe post-partum hæmorrhage, and her vision became still more impaired. The urine was examined at this period by Mr. Maturin, and was found to be free from albumin. Pain was experienced at the back of the eyes, and some citrate of iron and ammonia was prescribed for her, under which treatment her general condition underwent considerable improvement, though her eyes still remained dim. I saw her on July 16th. Her vision was then reduced to one-fourth of its normal sharpness, the left eye being worse than the right, but she could read small print (No. 2) in a good light. In the earlier period of the dimness she stated that she saw little red spots before her eyes, also that her cotton seemed in black patches and dirty. Her family history was good. Ophthalmoscopic examination showed that the discs were tolerably well defined, but the posterior pole of both eyes presented a stella of white spots around each fovea centralis, a condition that is of common occurrence in ordinary albuminuric retinitis. I gave an unfavourable forecast, but recommended a continuance of the treatment adopted by Mr. Maturin. On writing to him a few days ago he kindly sent the following reply:—

"Oaklands, Winchfield, Feb. 20th, 1880.

"My dear Sir,—In reply to your letter of yesterday, I write to say that Mrs. C—— is still living and in the enjoyment of good health. Her urine did not contain albumen at the time I examined it (whether it may have done so at any time previous to, or immediately after, her confinement I cannot say). For the last four years or more she has worn spectacles, and with the assistance of such her vision is fairly good.—Believe me, yours very truly,

"HENRY MATURIN."

The following is a case of a similar nature:—

Mrs. P——, aged forty-one. I saw this patient, who was under the care of Mr. Beadles of Forest-hill, in December, 1875. In the last weeks of pregnancy she noticed that her vision began to fail rapidly in both eyes. She had been a strong and healthy woman, but had a family of eight children rapidly, the eldest being only eleven years of age. She had been confined at the eighth month one week previously and was in bed. Her legs were swollen, and her urine contained albumin. She had large blotches of blood over the retina, which I could only see dimly with a candle, and with a moderate-sized pupil. The tension of both eyes was normal. Iron was ordered to be taken, and I afterwards heard that she made a good recovery.

On the other hand, I have seen more than one case in which the presence of albuminuric retinitis has proved to be the indication of extremely serious conditions of the system, terminating in the course of a variable period fatally. Such a case is the following:—

Mrs. Y——, aged twenty-eight, came to me three years ago (April 3rd, 1877). She was a well-grown, fair-complexioned, blue-eyed woman, had been married two years, and had given birth to two children in the course of one year. After the birth of the first child (Feb. 13th, 1876) her vision was defective for a fortnight, all objects appearing remarkably small, and she was unable to read, but she was always able to distinguish the window-frames. She suckled the child for several months, and whilst suckling it, again became pregnant. The vision improved considerably after her confinement, but in December it again became obscured. I was consulted upon the case by letter from Dr. Rudge, who wrote as follows:—"Mrs. Y—— has lately come under my care. At Christmas she was at about the seventh month of pregnancy. Both pupils were widely dilated, with entire loss of sight. Exposure to the brightest light did not cause the irides to contract, nor did it contract upon the application of Calabar bean. Examination of the urine indicated that the kidneys were acutely congested." Dr. Rudge saw her again at the end of April, and found the appearances of the eyes somewhat improved. "The pupils were less widely dilated, and contracted under the influence of Calabar bean. The urine was still loaded with albumin, and presented a few casts of tubes. She was dropsical, and had some effusion into the interlobular tissue of the lungs. Some improvement took place under the administration of digitalis, acetate and iodide of potassium, with the addition of a few drops of nux vomica." I found on examination that the vision of the right eye was abolished. She could read No. 8 Jäger with the left, and the distant vision was $\frac{1}{12}$. She remarked that everything looked red, and that she had a kind of kaleidoscopic pattern before her eyes; coloured spectra were also present with haloes. The tension of both eyes was normal; pupil of right eye dilated and immovable, of left eye very sluggish; the media were clear. The left disc was whitish, but not quite opaque. There was a little shrivelling or partial atrophy of the choroid on the inner side. Here and there on the fundus was a small hæmorrhagic spot. The veins were dark, of moderate size, the arteries small. The fovea centralis was apparently healthy. The right disc was white, especially at the margin. The vessels small, especially the arteries, which were almost imperceptible. The veins curved sharply over the margin of the disc, showing some cupping of that part. The choroid around the disc was thinned and

[1] Chron. Rec. d'Ophth., 1875, p. 132.

atrophic, as though optic neuritis had been present. The urine was very pale, and highly albuminous; it presented many cells, but no casts. She was ordered to take some iron and strychnia, and one or two Turkish baths. On April 7th I saw her again; she felt better. The urine was *acid*, albuminous, sp. gr. 1005. She was directed to continue the medicine and to go home. On April 13th, I have a note that vision of left eye is $\frac{1}{2}$, which is a slight improvement. On May 12th Dr. Rudge wrote stating that general improvement had taken place, that the sp. gr. of the urine had risen to 1015, and that it contained but little albumin. The dropsy was less, the catamenia had appeared, and that the vision of the left eye was somewhat clearer. On Oct. 8th, 1877, Dr. Rudge wrote to say that a day or two previously Mrs. Y—— had experienced an attack of hemiplegia of the left side, the opposite side to that of the amaurotic eye. She did not lose consciousness, but there was complete motor paralysis of the left arm and leg, and partial motor paralysis of the left side of the face, the mouth being drawn to the right. There was also diminution of sensibility of the left side. The movements of the right eye were impaired and the pupil more contracted than that of the left side. Mental faculties clear. She died on Oct. 27th, 1877. No autopsy was permitted. She was in the third or fourth month of pregnancy. This is evidently a case of albuminuria intensified by each pregnancy, and showing in a very marked manner the influence which pregnancy exerts over the progress of the disease.

(To be concluded.)

NOTES ON SEDATIVES IN PNEUMONIA.

BY FREDERICK ROBINSON, M.D., F.R.C.P.,
SCOTS GUARDS.

THE administration of opium—its utility in certain cases and stages of pneumonia—is a procedure now recognised in principle and noticed in text-books. Whether it obtains very generally in practice may perhaps be a matter of doubt. At a period not very remote the drug was either prohibited or allowed only in small doses, with the view of preventing mercury or other remedies from passing too quickly through the system. In the army, among the first to call attention to the value of this agent was Sir William Muir, when P.M.O. in Canada, about the year 1861. In a paper with which he inaugurated the opening of a Military Medical Society, that officer dwelt upon two points of importance in the treatment of inflammation of the lungs. One was the benefit derivable from a full opiate when delirium with insomnia supervened in the latter stage of the ailment, and at a time when the organs were recovering their functions. The other was a condemnation of the employment of blisters to aid "resolution" when consolidation lingered.

In North America pneumonia, as might well be supposed, was somewhat frequently met with among soldiers during the winter. Exposure, either on or off duty, with sudden variation of temperature, imprudence as to precautions, indulgence of drink (as regards "topers"), with consequent reckless habits, were factors of acute pulmonic affections in a climate and season otherwise highly favourable to health.[1] Hence medical officers had some experience in this and its kindred malady of pleurisy.

The treatment adopted in the hospital of the Scots Guards was based upon that of Bennett of Edinburgh; but an earlier employment of wine, and also adjuncts either of ammonia or quinine—in very bad cases of both; the ammonia frequently, quinine in full doses at longer intervals, I found in America (as I do now in London) necessary. Yet these measures would have failed repeatedly to tide over the attack were it not for recourse to strong sedatives at a crisis imminently dangerous. It is in cases generally—perhaps I should say invariably—of low type, where both lungs are implicated, and at a stage when the organs are recovering their function satisfactorily, that a fatal issue threatens. Every indication—symptom—may be favourable but one. Insomnia with delirium supervenes, and unless combated by powerful sedatives the patient sinks.

Under circumstances such as I have glanced at, Graves' treatment by opium and tartar emetic in combination came to my remembrance. Full doses of opium (the more stimulant preparation of tincture) I had been accustomed to give, but the time elapsing before satisfactory results were obtained, left recovery trembling in the balance too long, if, indeed (as I have seen when a medical officer did not begin the drug sufficiently early and largely), death did not supervene. The outcome of this change was all that I could hope for. Time was saved, danger materially lessened, and I cannot recall the occurrence of unfavourable symptoms or fatal issue in any uncomplicated case. A calm deep sleep, a pulse reduced in frequency while strengthened in volume, and warm perspirations ensued, just as Graves observed after its administration in certain stages of fever.

With these preliminary remarks I now give a brief summary of a case recently treated in the Regimental Hospital.

A young soldier, aged twenty-three, and of two years' service, was admitted Oct. 31st, 1879. Physique fairly good; habits occasionally somewhat intemperate, but neither the aspect nor antecedents of a "drunkard" were met with. Pyrexia; rigors yesterday; pain, referable to the left breast; dyspnœa; pulse weak and frequent; and evidences generally of much depression of the system. Harsh, exaggerated breath-sound audible at base of the affected lung, before and behind. Temperature 105°. Ordered a saline mixture with excess of carbonate of ammonia; jacket poultice.

On the following day (Nov. 1st) his condition was unfavourable. There was increased prostration of strength, augmented dyspnœa, and severe pain on inspiration below the left nipple. Auscultation showed consolidation of the lower half of the lung, and slight friction-sound at the seat of pain, also deficient breath-sound at the base of right lung; tongue furred and dry; occasional nausea; sputa thin, florid, blood, not tenacious. Temperature 104°. Ordered strong beef-tea; port wine an ounce every third hour; to continue mixture.

Nov. 2nd.—A restless night; dyspnœa increased; consolidation of left lung extended to nearly the whole organ; evidences also of hepatisation of the base of the right lung; tongue dry and red. Pulse 108, very weak; temperature 104°. Sputa ceased. Ordered subcarbonate of ammonia six grains, solution of acetate of ammonia and decoction of bark, each half an ounce, every third hour; also five grains of quinine twice a day.

3rd.—Passed a quiet night, but with little sleep. Dyspnœa lessened, pain in left breast abated. No friction sounds audible there. A little expectoration of thin blood. Pulse less frequent and of better volume. Tongue moist. Diaphoresis. Continue medicines.

4th.—A very disturbed night. No sleep, delirium, and the patient with difficulty kept in bed. In other respects decidedly improved. On auscultation returning crepitation audible in parts of both lungs; dulness less marked. Pulse 100,° of better calibre, and quieter; temperature 101°. Skin acting freely. Pain of side gone. Ordered liquor of opium twenty-five drops at bedtime. Treatment otherwise unchanged. Sixteen ounces of wine daily, a double amount in the evening with warm water.

5th.—Another sleepless night, with constant delirium. There is no flushing of the face, congestion of the eyes or other indications of cerebral congestion. Crepitus redux audible everywhere in the lungs, sputa a little white mucus streaked with blood. Pulse weaker and more frequent. Continue medicine and treatment. Wine increased to eighteen ounces. Tartar emetic a grain dissolved in twelve ounces of warm water. Add four drachms of tincture of opium. Take an ounce at 8 P.M., half an ounce every second hour after. Suspend the medicine after four doses.

6th.—For the greater part of the night very delirious. The orderly found it necessary to sit on the bed to keep the patient down on it. This morning he is quieter and inclined to sleep. The pulse reduced to 80 and of better calibre than yesterday; tongue clean. Breath-sound fully returned,

[1] During a service of three years there, I cannot recall a single case of consumption originating in my regiment when in Canada. The circumstance is noteworthy when the high rate of invaliding, ordinarily resulting from phthisis, in the Guards, is borne in mind. In fact, certain atmospheric conditions—dry, exhilarating air, sunshine, stimulation of vital powers generally, with consequent increased assimilation of nutriment—so strongly and favourably dwelt on of late by physicians with reference to Davos in the Engadine, were all met with at Montreal, and their value and efficacy in phthisical subjects fully recognised.

except behind the left scapula. Tonic medicines and treatment as before. Ordered the mixture of opium and tartar emetic, with double the quantity of the former (eight drachms of tincture), to be recommenced in the evening.

7th.—Slept soundly through the night after the first dose (an ounce) of the mixture, having been previously quiet in the daytime. This morning his condition in every respect much improved. Delirium quite gone. Pulse 76, of good volume. Expectoration fairly copious, free from discoloration. In fact, the crisis in the case was now over. The patient slept quite well on the next night without a sedative, and convalescence rapidly followed.

This was a case of pneumonia of low type, associated with pleurisy of the left lung—of course, a complication which added much to the danger. The liquid, sanguineous sputa—a valuable indication both as to the character of disease and treatment requisite—led to the employment of stimulation from the outset. This answered well, but although the lungs rapidly recovered their function, the patient would have succumbed to insomnia when, as regards the pneumonia, actually all but convalescent, were it not for sedatives. In this case I thought a single full dose of opium alone would suffice. I was in error, however. It may be said that bromide of potassium would have been equally efficacious—answered the purpose as well. Experience has led me to a different conclusion, and that the lengthened sound repose needed in cases of great exhaustion calls for a less depressant class of sedative. It is in the stimulant preparations of opium, enhanced in such action by the addition of small doses of antimony, that I place confidence. The precise therapeutic action of the two drugs when in combination I apprehend has yet to be arrived at. Graves does not, in his memoir on fever, profess to explain it.

The great value of antimony and opium in typhus I was afforded the opportunity of testing during a violent outbreak of the malady in the spring following the disastrous first winter in the Crimea.[2] I need scarcely add that terrible privation previously, as in the same visitations in Ireland, was the factor. And in London subsequently I have seen cases such as Graves describes, where the patient was all but *in articulo mortis*, with subsultus, a dicrotic pulse—scarcely countable from its frequency, and every precursor of a fatal issue, brought by such treatment speedily to a state of safety.

In some forms of delirium tremens, too, I can confirm Dr. Graves' experience of its efficacy. The views of the late Dr. Stokes, that typhus and typhoid are but modifications—developments—of the same poison, have been much controverted, and are antagonistic to those of physicians generally of the present day—certainly in England. From personal observation at the Dublin Fever Hospitals when quartered in that city, I can recall features of disease which to my mind entitle the observations of that eminently sagacious physician to at least very attentive consideration. As is tolerably well known, "fever," speaking in a broad, generic sense, obtains there always, and to an extent unknown in England.[3] In the wards patients are met with of all ages, old and young, thus proving at least the fallacy of age as a reliable guide to diagnosis of one fever rather than the other. And there are in operation at Dublin—have been for an indefinite period—precisely the insanitary conditions from which enteric disease takes its origin. On the other hand, nothing has been more marked than the improved condition, as regards food and clothing, of the lowest classes—their material prosperity. The same elements for causation of enteric are to be found in most, if not all, of the large cities in Ireland, such as Cork (in a marked degree), Limerick, Clonmel, &c.

In conclusion, I would refer to the valuable paper recently contributed by Sir William Jenner on the treatment of enteric disease. My own experience, doubtless very small in comparison, has not hitherto shown me any ill consequences from the administration, carefully, of opium either in small or tolerably full doses; and I am disposed to look on its administration, particularly when there is reason to believe that ulceration of the intestine exists, as of much importance in helping Nature to a favourable issue.

Claverton-terrace, St. George's-road.

[2] For this suggestion I was indebted to my friend, Deputy Inspector-General Crosse, then of the 11th Hussars.

[3] Among valued friends, leading physicians in Dublin, I can scarcely reckon one who had not passed through the ordeal of what I may safely call "Irish fever."

ON THE TREATMENT OF GLEET AND THE PREVENTION OF STRICTURE BY IRRIGATION OF THE URETHRA.

BY REGINALD HARRISON, F.R.C.S.,
SURGEON TO THE LIVERPOOL ROYAL INFIRMARY.

THERE are very few practitioners who have not at times experienced the greatest difficulty in the cure of gleet, in arresting the small quantity of urethral discharge which persistently, and in spite of all treatment, local and general, remains after the acuteness of a gonorrhœa has abated. Many patients have in despair given up the attempt to obtain a cure, and so have incurred the risk of a stricture as a consequence.

And yet what is all this trouble about? Simply a slight purulent discharge from a chronically inflamed patch in the urethra, which, by reason of its position, presents difficulties in its treatment. A state of affairs which, if it occurred in one of the more accessible spaces in the body, such as the mouth, nose, or larynx, where remedies can be directly and unerringly applied, there would not be the least difficulty in curing.

For the treatment of gleet a great variety of means and appliances have been suggested, including internal remedies by what are called anti-blennorrhagics, which are chiefly remarkable for their very nauseous taste; astringents of all kinds and degrees, applied locally as injections, or in the form of urethral pessaries; potent injections of caustics, which are only to be used by the practitioner himself with a suitable instrument; urethral brushes for the sweeping of the canal with a variety of solutions; insufflators for throwing in powders; contrivances for the application of ointments to the deeper portion of the urethra, portes caustique, and the urethral speculum, or, as it is called, the endoscope,—have all in their turn been brought into play for the purpose of what?—drying up somewhere about two minims per diem of muco-purulent discharge, which, were it not offensive to the sight, would probably be overlooked. Text-books have been in the habit of telling us for some time past that a persistent gleet is a sure forerunner of organic stricture; in fact, that a gleet may be regarded as indicating that a stricture is forming. By a train of reasoning, certainly not of proof, which I am at a loss to understand, the relative positions of gleet and stricture, as parts of a continued inflammatory process, have suddenly become altered. We are now told that pathologically we have been putting the cart before the horse, and that, as a matter of fact, from henceforward we are to understand that a gleet is an intimation to us, not that a stricture *will* form, but that it *has* already done so.

If we admit the truth of this at once, and set aside our old-fashioned dogma about gleet being the inflammatory process that precedes the formation of a stricture, and so agree to alter the relative position of the two, we shall then be prepared to adopt the view that a gleet can only be effectually cured by removing the stricture of which it is merely a symptom. And this latter we are asked to do by the employment of a dilating urethrotome and dilators, the use of which, judging from their size, would at once be misunderstood if they were described as being adapted for the treatment of stricture. Hence they are spoken of as instruments to be used in cases of gleet for the purpose of bringing urethras up to their "individuality," as if there were grounds for believing that in respect to form there was any more "individuality" about a man's urethra than there was about his rectum. I must say that I viewed with positive horror the idea of performing an internal urethrotomy on a man for a gleet on some presumptive evidence that his urethra lacked "individuality." I do not admit the soundness of the reasoning altering the relationship of gleet to stricture, or the practice which it is proposed to base upon it. In several instances which have come under my notice, the performance of internal urethrotomy, as recommended by Dr. Otis, has entirely failed to remove the disease—namely, the gleet for which it was undertaken.[1] True, the "individuality" of the urethra was restored, but "la goutte militaire" remained—

[1] On Stricture of the Urethra, by F. N. Otis, M.D., New York.

a compromise which the patient, at all events, failed to appreciate. Nor is Dr. Otis's operation free from dangerous as well as disappointing consequences, as I have shown by a published record of Mr. Berkeley Hill's cases referred to elsewhere.[2] If we consider certain conclusions which the examination of gleet and stricture cases, in considerable numbers, enables us to arrive at, I do not think we shall have difficulty in explaining our want of success, or in improving our treatment without resorting to an operation which I have already referred to as being, in my belief, both hazardous and disappointing.

The conclusions I would lay stress upon are these:—1. That the large majority of strictures, excepting those caused by injuries to the urethra, are preceded by more or less chronic gonorrhœa or gleet. 2. That the most frequent seat of stricture corresponds with that of gleet—namely, the subpubic or deeper portion of the urethra.

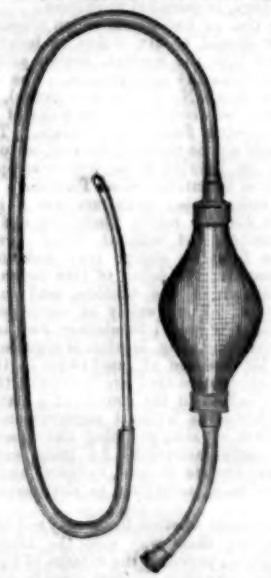
Assuming these conclusions to be true, which I do, not only from my own personal observation but from that of others who have had sufficient opportunities of forming an opinion, it certainly looks as if the persistence of gleet and the formation of stricture were due to the imperfect means hitherto adopted for dealing with the bulbous and membranous portions of the urethra when chronically inflamed; in fact, that the disease escaped treatment altogether. Surely this is more rational than to regard the affection as an incurable one, or to propose to reverse the sequence of pathological events. Why do not women suffer from gleet or from stricture, or do so in such small proportion as not to alter the rule? Simply for the reason that the parts involved are easily to be got at for the purposes of treatment. The endoscope, moreover, has shown that the deeper portion of the urethra is the part affected in gleet, the appearance presented being granular and similar to what is observed in some forms of ophthalmia. Mr. Gould has also clearly demonstrated that this part of the canal, by reason of its position, is favourable to the retention of diseased secretions and other sources of irritation which would be likely to keep up the gleety discharge.[3]

All these observations seem to point to a conclusion that our means for efficiently applying remedies to the sub-pubic urethra are more or less imperfect, and that if we could deal with this part as directly as we do with the anterior third of the canal, the treatment of its disorders would be as successful as that of the other accessible cavities and passages of the body.

If I am correct in my assumption that the urethra at, and posterior to, the bulb (excluding of course the prostate) is the seat of the chronic inflammation we call "gleet," how utterly inert our treatment of it must be by injections as usually and popularly practised.

In the first place, I question whether an injection as used with an ordinary glass syringe ever succeeds in reaching the bulbous or membranous portions of the urethra, and even if it does so, as it may in a few instances when practised by old hands, its contact with the membrane is so brief as to be really useless. The conventional mode of injecting, so far as the deeper portion of the urethra is concerned, is just about as efficacious as a gargle would be if the patient slyly took a mouthful of the fluid prescribed, retained it for something like a minute, and then spat it out, repeating this performance twice or thrice a day. What possible service would this render to an ulcerated throat? If to make up for the briefness of contact between the injected fluid and the diseased surface the former is materially increased in strength, its very astringency, by provoking spasm, renders it intolerable and consequently useless. Do not injections, I ask, so applied prove to be in gleet utterly useless, whatever astringent is selected for the purpose? And, failing injections, or perhaps using them for supposed cleansing purposes, and as forlorn hopes, what else have we to fall back upon? Copaiba, cubebs, and sandal wood, separate or combined, in every variety of form and shape, all more or less nauseous and disgusting. It is astonishing what power of endurance a man will submit his palate and stomach to to get rid of any trouble of this nature. Some of these anti-blennorrhagics, as they are called, prove successful in a certain proportion of cases in medicating the urine (often very obviously so), and thus cure the disease. But what is to be done with the number of persons, not inconsiderable, who are positively made ill by these remedies, and who are also not benefited by injections? These, as a rule, go on trusting to the chapter of accidents, even if coming in the form of a newspaper advertisement, and generally reappear on the scene again after the urethra has been sufficiently indurated, by persisting inflammation, to be treated for a stricture. For by this time, the membrane, being hardened and structurally incapacitated from doing so, has ceased to secrete muco-purulent matter, and an organised stricture is thus substituted. Such is, I believe, the usual sequence of events.

For some time past I have been employing in the treatment of gleet a very thorough irrigation of the urethra throughout its whole length by means of an apparatus which I have had specially constructed for the purpose. So



far the results obtained have been highly satisfactory in speedily curing the gleet and consequently preventing the formation of stricture. In carrying out my views I have taken a hint from what is now done with so much benefit in the case of the nasal passages, a thorough irrigation or washing out of these by a suitable contrivance being substituted for the imperfect medication by syringes, brushes, snuffs, and such-like expedients, which were formerly prescribed with so little advantage. Many of the diseases of the nasal spaces which heretofore were considered most intractable are by the improvements in mechanical contrivances referred to rendered perfectly amenable to treatment. To effect this with the urethra I make use of a small Higginson's syringe and a sufficiently resisting vulcanised india-rubber catheter. I direct the patient twice or thrice a day to douche most thoroughly his urethra by means of these appliances, entirely discarding for the purpose all his notions about the old glass syringe arrangement as being utterly unfitted to cure a gleet. If the patient does not from the first recognise the necessity of submitting his urethra to a complete medicinal washing, his efforts, like his previous ones, will probably be ineffectual.

I direct the patient to denude himself of his nether garments, and, seating himself in a chair with his pelvis inclined forwards to the edge, to introduce the soft catheter and gently pay it into the urethra, having previously anointed it with some vaseline. If the patient finds that he can introduce and retain more easily a stiffer catheter, he may substitute one of the French instruments in the same way, of the required length and size, taking care that the eye is within half an inch or thereabouts of the end. Having done this, he attaches the catheter to the small Higginson's syringe, which is connected with a tumblerful of the fluid to be used, tepid. I generally make use of the sulpho-carbolate of zinc, in the strength of about half a teaspoonful to a pint of water. The patient, steadying the catheter in his urethra with his left hand (not squeezing the meatus around it), slowly compresses the ball of the syringe with his right hand, the vessel containing the fluid to be

[2] THE LANCET, April 8th, 1876. [3] Ibid., December 8th, 1877

injected being placed by his right side, or attached, as it may be done by a bottle arrangement, to the feeding-pipe of the syringe. In this way the patient is directed to continue using the apparatus until the urethra has been completely washed out; the fluid, after it has circulated between the walls of the urethra and the catheter, escaping through the meatus, where it is received into some convenient receptacle.

I may perhaps have been unnecessarily explicit in referring to all these details; but these being thoroughly carried out, and in a manner very different from the furtive and speedy action which characterises the proceeding as effected with the glass syringe, is essential to success.

There are one or two points which remain to be noted. The catheter should be six inches in length, and be completely passed into the urethra, merely allowing room for the connexion with the syringe-pipe. The catheter should not be larger than a No. 6 (English gauge), so as to allow plenty of room between it and the walls of the urethra, in which the injected fluid can circulate. The eye in the catheter should not be too near the end, or too large, and its edge should be beveled so as not to scrape the urethra. For smoothness in introduction, Tiemann's (of New York) velvet-eyed india-rubber catheters are a great improvement on the English make, where the eye of the instrument is punched out without being beveled. Whilst injecting the fluid its escape may suddenly be stopped for a few seconds; the doing of this forces the fluid into the small lacunæ of the urethra, and so cleanses and medicates them. The quality of astringent in the fluid should not be too great: to cleanse and astringe without paining, or even smarting, is what is required. The operation should be repeated at least twice in the twenty-four hours. The appliances used are so simple, that they can be brought into action in the course of a patient's ordinary bathing arrangements without inconvenience. I mention sulpho-carbolate of zinc as being the most generally appliable and useful astringent for these cases. Sulphate of zinc, borax, acetate of lead, quinine, and carbolic acid, all have their uses, according to circumstances, in these cases.

I have been asked whether harm may not be done by these injections finding their way into the bladder. I do not believe they do so, provided the meatus of the urethra is not compressed for more than the few seconds necessary to distend the urethra and cleanse the lacunæ. When the meatus is not compressed, which is the ordinary position of things whilst the process is going on (provided the catheter is not larger than the size I have specified), the injected fluid far more easily finds its way *out* through the meatus than into the bladder. Besides, if it did go into the bladder, it would do no harm if the strength of the solution is kept within the bounds I have indicated. About six inches is the extent to which the catheter should be passed before the injecting is commenced. If I have any doubt as to whether in a particular case this is sufficiently accurate, I first make a careful examination of the urethra with an ordinary bougie. This will at once indicate by the sensation produced the point or points upon which it is necessary more especially to act. This may possibly require a lengthening or a shortening of the catheter; six inches is the length I generally find to be sufficient. In compressing the syringe the action should be slow and gradual; if it is jerked, the fluid will not escape in the even and regular manner that is required, or the catheter may be forced out.

In addition to its use in curing gleet and preventing stricture, I think the urethral irrigator will prove to be of considerable service in cases of spermatorrhœa, where, as a consequence of all kinds of debauches, the generative apparatus has lost the tone that is necessary to the due performance of its function. It is, however, in the treatment of gleet more especially that I wish to draw attention, not only to the value of the instrument, but to the still greater importance of adopting more thorough means for the efficient application of remedies to the deeper portion of the urethra.[4]

[4] The urethral irrigator has been made for me by Messrs. Symes, Hardman-street, Liverpool.

AT the twenty-eighth anniversary festival of the City Orthopædic Hospital, held last week, the result of the enthusiastic appeal by the Lord Mayor, who presided, was a list of subscriptions amounting to over £500.

ON MEDICAL CERTIFICATES OF INSANITY.

BY T. N. BRUSHFIELD, M.D.,
MEDICAL SUPERINTENDENT, BROOKWOOD ASYLUM, SURREY.

(Continued from p. 713.)

ALTHOUGH not strictly within the objects of this paper, there is one matter so intimately connected with the subject that I cannot help referring to it, on account of its importance to medical men generally, especially as it may be the cause of their being unjustly blamed. On the reception of any patient the asylum medical officer is required by the statute (16 & 17 Vict., cap. 97, sec. 89) to send to the Commissioners in Lunacy within seven clear days a written certificate as to whether from his own personal examination he is of opinion the patient be insane or not; and it occasionally happens he has to certify that the patient has exhibited no symptoms of insanity during the time he has been under his care. As a necessary sequence, some of these cases are discharged, and the certifying medical practitioner may feel annoyed from the idea that doubts have been thrown upon the correctness of the symptoms he had detailed. I know of remarkably few cases where such doubts had been entertained by the asylum medical officer, and it should be distinctly understood he gives no opinion as to the patient being *not insane*—the evidence of the previous symptoms being undoubted,—but he simply records that during the asylum residence no symptoms of insanity have been observed, although diligently sought for. This eventuality may occur in very different classes of cases, as I will now endeavour to point out.

1. Those showing no symptoms of insanity when admitted, but who exhibited evident symptoms when examined by the certifier—a probable occurrence is some form of epileptic and of recurrent mania. The Commissioners in Lunacy exercise a very wise discretion in many of these cases by requiring the asylum medical officer to send an additional certificate of the mental state of the patient at the end of two or more weeks, and before the termination of this period I have on several occasions known the symptoms of insanity to return, and so authorise the detention of the patient. Again, it is not uncommon in some cases of dipsomania, or of insanity produced by ordinary intemperance. The following is a good instance:—*Facts personal.* Has various delusions; one is that "the nurse and other persons here are conspiring to rob and injure her." *Facts hearsay.* "Informed by the police that she was running about the street nearly naked, followed by a lot of boys, and tried to jump into an area." This patient was perfectly rational when brought to the asylum, and showed no trace of delusion. Her case was one of confirmed dipsomania. A shrewd clever woman, and possessing ample means of living, she felt impelled to give way to drinking habits from time to time, and which always brought her into trouble. Fines and imprisonment had not the slightest effect upon her. There was no doubt she was to all intents and purposes insane prior to her admission; there was equally no doubt of her being exactly the reverse of this during her asylum residence. On being discharged she went into another county, and soon got into difficulties again. Some patients who show mental symptoms when admitted become comparatively sane after the administration of a warm bath and a purgative, so much so that if the certifier saw them at that time he would be unable to testify to their insanity.

2. Patients transferred from another asylum, being convalescent at the time. A patient may be adjudicated to a parish in another county, but at the time of transfer to the proper county asylum may have so far improved as to be fairly convalescent, but the medical superintendent who has had the care of the case may be doubtful as to complete restoration, and therefore instead of getting the patient discharged as recovered, he allows the patient to be transferred. The medical superintendent of the asylum so receiving the case may be unable to detect any symptoms that he would be warranted to describe as those of insanity, and so under his direction the patient is discharged as having exhibited no symptoms. Cases of this kind have occurred within my own knowledge.

3. Patients brought to the asylum in a state of extreme prostration or even in a moribund condition, and dying soon after admission, so that the medical officer of the asylum is unable to pronounce an opinion as to whether the patient was insane or not. Instances of this kind occasionally take place where the patient was in a state of extreme debility, and changed rapidly for the worse during the transit to the asylum, an occurrence more likely to take place when the medical man does not see the patient on the day of removal.

4. Where the symptoms noted and recorded prior to admission do not amount to insanity; for instance, ordinary vicious habits as the normal condition of the individual could not be considered as indicative of mental disease. A case of this kind was recently discharged from the Brookwood Asylum on this account.

5. Patients who have shown no symptoms of insanity either before or after admission. The public are apt to believe this to be of common occurrence, but my own experience points to its rarity. From the opening of the Brookwood Asylum to the present date (March 27th, 1880) 3623 patients have been admitted, yet out of this large number I can only remember two instances of this class. The first was a case of delirium following typhoid fever, and the medical man had evidently made a wrong diagnosis. The second was that of a man who had lost a considerable amount of blood from an accident, and for a few days was evidently the subject of slight anæmic delirium. The medical man who had the care of the patient, and knew the whole of his history, did not consider him insane; the relieving officer of the district thought otherwise, and took him to another medical man, who certified to the insanity, depending, I am afraid, more upon the evidence given by the officer than upon that of his own examination. The patient was perfectly sane on arrival at the asylum and was soon discharged.

I now desire to direct attention to some of the imperfections in the present form of lunacy certificates, and to make some suggestions as to remedying them.

As there are only two points in the statutory portion that require attention, I will allude to them at once.

1st. It appears to me defective in not containing the *name and address* of the relative or friend who directed the examination of the patient to be made (in the case of a pauper, the name of the magistrate would be sufficient). This could be thus easily remedied:—"I, the undersigned, ——, and being in actual practice as ——, hereby certify that I, *by direction (and under the authority) of* ——, on the —— day of —— at —— in the county ——, &c."

2nd. Instead of the sentence "separately from any other medical practitioner," the one formerly in use, "separately visited, and personally examined," would be far preferable, as less likely to mislead the medical men with reference to their joint presence, &c. In the Scotch certificate it runs thus, "Separately from any other medical practitioner, visited and personally examined," a great improvement upon the English form. Both of these points appear to be of minor importance, but the more complete and the less capable of being misunderstood a legal document is the better.

The medical portion is that which requires the most material alteration. The present form of certificate rather appears to encourage medical men to give only just a sufficient number of "facts" to procure the patient's reception into an asylum, and to discourage them from giving a proper medical history. I think the time has arrived when much more than this should be requisite. No medical man should be conscious he has performed his duty properly unless he has investigated the whole of the symptoms manifested by the patient, so that his knowledge of the case be full and complete. He alone has the opportunity of ascertaining the principal facts bearing upon the patient's insanity; and I would strongly urge that a concise history of the case, so far as it can be learned, should be given by him, instead of the limited number of "facts"—and these too frequently of a meagre description—so generally contained in medical certificates. The certificate itself should be so arranged as to facilitate his more extended account of the history and symptoms. Many medical men would be only too thankful for any kind of tabulated form to assist them in giving the desired information. They are usually well acquainted with all the facts, but their difficulty consists partly in a want of knowledge as to which of them it is necessary or desirable to mention, and partly as to their arrangement.

The legal document which authorises the patient's reception and detention in an asylum, and is supposed to assign ample medical reasons for so doing, should be of the most full and comprehensive character, and contain such information as should be known by all persons—medical, official, and legal—who may in any way have to do with the case. No one can say that the form now in use meets such requirements. A large number have now to be returned to be amended, or strengthened, or explained by the writers, owing to the weak and unsatisfactory nature of the medical evidence.

The object of the certificate should be threefold, and this can only be effected by a relation of the whole of the facts bearing upon the case. 1st. To procure the admission of the patient into an asylum. 2nd. To place the medical staff of the asylum in a better position for the treatment. 3rd. To afford the Commissioners in Lunacy the proper means for ascertaining whether a *primâ facie* case of insanity has been made out.[1]

The present certificate, as is well known, is divided into two sections. 1. Facts indicating insanity observed by the medical man himself. 2. Other facts communicated to him by others.

The first of these two is the essential portion, and therefore needs the most consideration. I would recommend this to be divided into two portions, thus:—(*a*) Personal facts observed on the day of examination. (*b*) Personal facts observed at any other period. This would at once meet one of the principal difficulties experienced by the certifier as to any facts being observed on days other than that of the examination, and much valuable information would be recorded, for which at present there is no place in the certificate. It is, I think, mainly owing to this last-named reason why the Commissioners in Lunacy allow many of this class of facts to pass without comment, although they certainly appear to contravene the law when they constitute the principal proofs of the patient's insanity. Take, for example, the following instance:—"I have long known her to be an imbecile person, and at times to be subject to fits of irritability of temper, which have increased in frequency and violence of late, so that I consider it to be unsafe for her to associate with the other pauper inmates." The hearsay facts testified to acts of violence. As a really bad certificate this deserves a few comments. Its statements consist of three facts:—1. As to the patient being imbecile. 2. Liability to outbreaks of irritability of temper and of violence. 3. Being dangerous to others owing to violence. The second, as recorded, does not appear to have taken place on the day of examination, nor are the symptoms other than a sane person might display. This certificate was written in 1867. I scarcely think the Commissioners in Lunacy would pass a similar one unchallenged at the present date.

As all the symptoms noticed on the day the patient is examined by the medical man, must always be considered as the most important, whether as the reason for asylum detention or for supplying information in case of legal inquiry, I am strongly of opinion the practitioner would derive direct benefit and assistance if the facts under the heading I have suggested were arranged in a tabular form, so that all the symptoms then observed could be recorded under their several headings. Such a table might be based upon the principle I have already recommended for the practitioner to adopt when framing his certificate; or upon that recommended by a committee of members of the Medico-Psychological Association for insertion in the Case-book, to facilitate the labour of the asylum medical officer in recording all the symptoms of mental disturbance exhibited by a patient at the time of his admission. The adoption of some such plan would be attended with the following beneficial results:—1. All the essential points would be so brought under the notice of the certifier as to facilitate the examination of the patient. 2. All the principal symptoms would more probably be recorded in the certificate than is at present the case. 3. The negative symptoms would be recorded as well as the positive, which is not the case at present. There can be no question as to the great advantage of the last-named. Take, for instance, the symptom of delusion. Under the present form of certificate, all mention of any may be

[1] "Few of our duties require more vigilance than that of satisfying ourselves, in all doubtful cases, as to the validity of the orders and certificates on which patients are admitted into asylums, or become subject to detention in any place' (Fifteenth Report of the Commissioners in Lunacy, p. 65).

omitted, and yet the document be perfectly valid, provided the other symptoms of insanity are recorded which in themselves are sufficiently indicative of the disease. Whereas if, under the heading "Delusions," the practitioner had to report whether the patient did or did not entertain any, and, in the event of the former being the case, had to describe them at length, the testimony, whether of a positive or a negative character, would be equally valuable and complete.

The personal facts observed on other days than that of the official examination would not require tabulation. The existing second heading would form No. 3 of the suggested form. The only addition necessary to make it more complete would be the name and address of the person communicating such information. The desirability of making this a statutory requirement has been commented upon by the Commissioners in Lunacy in their thirty-third report, p. 128. To these I would add a fourth, to contain such information respecting the mental and bodily symptoms and their causation as are not included in the other portions of the certificate. This requires an extended explanation and notice, as I regard this to be equal in importance to the other sections. Some of these particulars of required information are contained in the medical certificate in use in Ireland; but the most extended and complete form is the "additional statement" appended to the order of admission into the Royal Edinburgh Asylum. *(To be concluded.)*

ON SOME

PERIODICAL CHANGES WHICH OCCUR IN FIBROID TUMOURS OF THE UTERUS, AND THEIR SIGNIFICANCE.

BY JOHN WILLIAMS, M.D., F.R.C.P.,
ASSISTANT PROFESSOR OF MIDWIFERY AT UNIVERSITY COLLEGE, AND ASSISTANT OBSTETRIC PHYSICIAN TO THE HOSPITAL.

IT has been long known that fibroid tumours of the uterus undergo certain changes during gestation and menstruation. During gestation such tumours have been observed to grow with the growth of the uterus, and after parturition to undergo involution—in some cases simply to such a degree as to be restored to their condition when impregnation took place, in others as to disappear entirely. Though our knowledge of the changes which take place in tumours during gestation is not very large or very accurate, yet our knowledge of the changes which take place in them during the monthly changes of the uterus is even less. It is generally believed that during menstruation fibroid tumours of the uterus are larger than at other times; and women, subjects of such growths, not infrequently state that they are larger during menstruation than at any other period. The explanation usually given of the phenomenon is that the congestion which affects the uterus at the menstrual epoch extends itself to the tumour, and that consequently the fibroid partakes of the enlargement of the organ in whose walls it is lodged. This explanation is in accordance with the view of the menstrual processes which has prevailed for a considerable time—namely, that the time of the menstrual flow is a time of uterine activity, the intermenstrual interval a time of uterine repose, and that the flow itself is the result of a sudden congestion of the uterus depending upon ovarian influence.

I am not going to discuss the process or theory of menstruation in this paper, except in so far as my observations in cases of fibroid tumours bear upon that important question. The cases which form the basis of this paper are five, and all of them, except one, have been under observation for some time in the wards of University College Hospital. The exception has been observed for two or three years in a home for invalids. Some of the cases have been observed more carefully and reported more fully than others, because I was ignorant of the existence of the periodical changes of fibroid tumours until I stumbled upon indications of them accidentally, and because of the difficulty of watching patients with sufficient care to observe these changes fully.

CASE 1.—M. S——, a single woman, aged twenty-eight years, living in the country, was admitted into the hospital on 29th January, 1878. She was a teacher, and had been a teacher for nine or ten years. She had enjoyed good health, with the exception of having suffered from occasional attacks of neuralgia of the face, until her present illness. This began six months ago with a feeling of pain in the back and left side and retention of urine; the retention was relieved by catheter, but the pain and uneasiness continued. Retention has occurred six times during her illness—that is, during the last six months—on each occasion at the menstrual epoch. During the intervals micturition has been frequent. Menstruation began in the thirteenth year; it was regular from the first and has continued regular up to the present time. During the last two years it has been very profuse and has lasted longer (seven or eight days) than formerly, but it has not occurred at abnormal times.

On admission she was anæmic but well nourished. On examination the cervix of the uterus was found short, softish, high up, and directed forwards. The posterior part of the pelvis was occupied by a smooth, globular, firm tumour, which bulged the posterior wall of the vagina forwards, and descended below the level of the cervix. The sound entered three inches and a half, with the concavity backwards. It was evident that the mass was the enlarged body of the uterus. It was found impossible to raise it out of the pelvis. The tumour could be felt deep in the pelvis by abdominal palpation, but it did not rise above the pelvic brim. Three minims of a solution of sclerotic acid (half a grain) were ordered to be injected into the abdominal wall over the tumour twice a week.

The day before menstruation appeared she was unable to pass urine. Soon after the appearance of the catamenia the difficulty ceased. The flow was profuse, clotty, and accompanied with severe pain. It lasted six days. The day after its cessation (Feb. 19th) the patient was placed in the knee-breast position, and another attempt was made to push up the tumour. This proved successful, and an elastic ring was introduced to prevent the return of the organ into the pelvis. The sound was introduced two inches and three-quarters in the normal direction, in front of the tumour, which was in the posterior wall. The tumour now could be distinctly felt by the hand above the pubes.

On March 16th menstruation appeared again, profuse, but with less pain than previously. It lasted six days, and after its cessation the uterine cavity measured two inches and a half (March 23rd). At this time the uterus could be felt only by deep palpation through the abdominal walls. It gradually increased in size, and on April 6th it was distinctly larger. On April 16th it could be felt forming a distinct tumour reaching to about midway between the pubes and umbilicus. It was tender on palpation.

On April 17th menstruation appeared, profuse, and accompanied with severe pain. It lasted five days.

On the 23rd, the day after the cessation of the flow, the uterine cavity measured three inches, and the uterus had sunk so low that it could be felt only by deep abdominal palpation. After menstruation had ceased, retention of urine set in, depending apparently on the decrease in the size of the organ permitting it to sink into the pelvis, so as to press upon the neck of the bladder. The decrease in the size of the organ took place before or during the early part of the menstrual flow. Observations were not made with sufficient care and frequency to decide the exact time of its occurrence; but it was complete by the end of the first day of the flow. Since she has left the hospital she has been under the care of Dr. Griffiths of Swansea, and he informs me that, though he cannot determine the exact time of the decrease, yet he has observed that it had taken place before the end of the first twenty-four hours of menstruation.

CASE 2.—H. T——, aged thirty-six, unmarried, came under my care in January, 1877. She was then bleeding profusely, and was so blanched and exhausted that she was unable to leave her bed. She began to menstruate in her thirteenth year, and the catamenia used to return every fortnight, and last on each occasion ten to fourteen days. They were accompanied with a great deal of pain. From her twentieth year the pain grew worse and the bleeding more profuse. No tumour or swelling was, however, noticed until five or six years ago. When first seen a large median tumour was found rising from the pelvis, and reaching two inches above the umbilicus. It was smooth, moderately hard, non-fluctuating, movable, and had the characters of a

fibroid growth. The cervix was large, high up, and unaffected by the disease; and the enlarged body of the uterus could be felt above forming the tumour which distended the abdomen. The sound entered along the anterior surface of the growth for five inches. The bleeding had been continuous for some time. Half a grain of sclerotic acid was injected under the skin of the abdomen twice a week; the bleeding began to lessen, and at the end of five or six weeks she had intervals of ten to fourteen days free from hæmorrhage, alternating with bleeding epochs of similar duration. At the end of three months the bleeding epochs had become still shorter and the intermenstrual intervals prolonged to nearly three weeks. The use of sclerotic acid was then discontinued for a month and the bleeding became profuse and almost continuous. Recourse was had again to the use of sclerotic acid with the effect of diminishing the hæmorrhage. She improved in health, gained strength and colour, and was able in August to go to her friends in the country, and stay there a month. During this time the acid was not used, and after her return to London the hæmorrhage began again. The acid was again used as before, and with similar effect. At the end of February, 1878, she complained of much bleeding, pain in the back, and bearing-down,—pains she had never suffered before. On examination the cervix uteri was found dilated and a portion of the tumour projecting through it into the vagina. This was removed, and the use of sclerotic acid continued some time longer. Portions of the tumour have been removed on two occasions since. The pieces removed were soft and œdematous. At this time the tumour seemed to have diminished in size, for it reached only to the umbilicus. I was not then aware of the alternate increase and diminution in the size of fibroids, so that I attributed to the effect of the acid more than perhaps was due. For the last eighteen months the acid has only been occasionally used, for the catamenia have not been very frequent or profuse, though still excessive. I have since repeatedly observed that the tumour diminishes at the beginning of and with menstruation, and grows again gradually during the intermenstrual period.

The following are the measurements during the last month: She menstruated from 15th Jan. to 23rd Jan. On February 7th the tumour reached three inches above the umbilicus. On the 10th it reached four inches above the umbilicus. She began to menstruate on the 9th, but very scantily; and on the 11th the upper border of the tumour was three and a quarter inches above the umbilicus, on the 13th two and three-quarter inches.

CASE 3.—H. W——, aged forty-four years, a widow, was admitted on November 7th, 1879, into University College Hospital. She has always enjoyed good health. She has been married eleven years, and has never been pregnant. The catamenia appeared first about the thirteenth year, and returned every four weeks, lasting each time two or three days. In February of this year she had a profuse flooding, but since that time the flow has been somewhat less. During the intermenstrual intervals she is usually quite well, but occasionally she has noticed a little yellow discharge. She never suffers from nausea or vomiting, and is free from pain. She first noticed the swelling in the abdomen about two years ago, and says "it flattens after each menstruation." She was well developed, well nourished, but pale; the mucous membranes were very anæmic. There was a systolic murmur audible over the heart and great vessels at the root of the neck, but loudest over the third left costal cartilage; otherwise the heart and lungs appeared healthy. In the lower part of the abdomen was felt a smooth, rather hard, oval-shaped (but with a slight notch in its upper border) tumour. It rose from the pelvis, was somewhat more prominent and reached a little higher on the left than on the right side of the median line. On the right it appeared flattened out, and was less defined than on the left. On November 8th she said that she daily expected her courses, and thought that she was a couple of days after her proper time; she added, "I am now much bigger, but I shall be quite flat when the courses are over." The vagina was relaxed, the cervix hard and thickened. The os uteri was much larger than is usual in nulliparæ, and was pushed forward. Behind the uterus was a hard, smooth, round body, continuous with the uterus and with the tumour in the abdomen. It was freely movable with the uterus, which was in front of the growth, and not tender. The sound could be introduced for four inches and a half in front of the tumour, and a little to the left side, to the highest part of the swelling in the abdomen, so that the left prominence was the fundus uteri. This part reached to within an inch and a half of the umbilicus. On Nov. 9th the highest part of the tumour reached within two inches and a half of the umbilicus—that is, it was one inch lower than on the previous day. In the evening, at 11 o'clock, the menstrual flow made its appearance, so that the decrease in the size of the swelling took place nine hours previous to the appearance of the flow (the visit being made at 1.30). On the 10th and 11th the flow was very profuse; between 4 P.M. on the 10th and the morning of the 11th nine large drawsheets were soaked through, and on the latter date the distance between the umbilicus and the upper border of the tumour measured three inches, only half an inch more than nine hours before the flow appeared. The distance remained unchanged till the end of menstruation on Nov. 18th. Then the sound was introduced, and the length of the uterine cavity was found to be three inches, an inch and a half less than on the day previous to the commencement of menstruation. During this time—that is, from her admission on Nov. 7th till Nov. 18th—she was put upon no treatment, so that nothing interfered with the natural course of the growth. On this day (the 18th) a hypodermic injection of sclerotic acid (half a grain) was given, and on the following day (19th) the distance of the upper border of the tumour from the umbilicus was four inches and a half, and on the 20th three inches and a half. The hypodermic injection was repeated on the 21st, and on the following day this distance had increased to five inches. On the 24th the distance had diminished to four inches and a half, and the length of the uterine cavity as measured by the sound was found to be three inches. From this time to Dec. 5th the distance gradually diminished as follows:—Nov. 26th, distance from upper border of tumour to umbilicus, 3⅞ in. On the 27th, 3½ in.; on this day there was a slight discharge of blood—two or three small clots. On the 28th, the distance was 3¼ in. On Dec. 1st, 3 in. On the 3rd, 3 in.; no discharge of any kind; hypodermic injection of sclerotic acid. On the 5th, the distance was in the morning, 2⅞ in.; hypodermic injection given; distance in the evening, 3¼ in. On the 7th, 4 in. On the 8th, 3½ in. On the 11th the distance in the morning was 3 in.; sound enters 3⅞ in.; abdomen somewhat fuller; distance in the evening, 3 in. to 3½ in. On the 13th, the distance in the afternoon was 4¼ in.; does not feel well; menstruation began. On the 15th, the distance was 4 in., menstrual flow much less than usual. On the 16th, the distance was 3¼ in. On the 17th, 3½ in. On the 18th, 4 in. On the 20th, 4 in. On the 22nd, 4 in.; menses have been not at all excessive. On the 27th, the distance was 3½ in. On Jan. 1st, 3½ in. So that throughout the interval, despite the sudden decrease which followed injections of sclerotic acid, there was a gradual increase in the size of the tumour, and an equally sudden diminution before or about the commencement of menstruation.

(To be concluded.)

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

[EYE DEPARTMENT.]

CASES OF TEMPORARY AFFECTION OF ONE OPTIC NERVE, COMPARABLE TO BELL'S PARALYSIS OF THE FACIAL.

(Under the care of Mr. NETTLESHIP.)

CASES such as those given below are instances of a small but well defined group of cases in which the affection of the optic nerve is in several of its clinical characters similar to the common cases of facial paralysis attributed to the influence of cold. The failure of sight sets in quickly (though not *suddenly*), affects only one eye, is accompanied by slight inflammatory appearances at the disc, and is usually followed by complete recovery. There is very often pain on the same side of the head, generally "neuralgic" or "rheumatic."

The disease is described by Leber (Graefe-Saemisch's "Handbuch") as due to a temporary and slight inflammation of the trunk of the nerve behind the eyeball. Mr. Nettleship said that he had now seen a considerable number of these cases, but believed the disease to be much less common than paralysis of the facial nerve. His patients had all been between about twenty and thirty-five, he had seen no cases in children or old people. He believed the disease did not relapse, and never attacked the second eye, but it was very interesting that one of the cases here given had recently recovered from facial paralysis; it did not seem probable that this optic nerve disease could be caused by cold. Mr. Nettleship remarked that cases of rapid failure of one eye, sometimes with gross neuritis, ending in permanent blindness, were also met with, but thought it more useful to consider them for the present as distinct from the present group.

CASE 1. — James G——, aged twenty-seven, a very intelligent man, of half Irish parentage, employed in the Westminster Aquarium, had for two or three years been an occasional patient on account of old granular lids, contracted when a boy at Forest-gate School. He had some hypermetropia and astigmatism, and an old convergent squint of the left eye, with defective sight from suppression. He wore a cylindrical glass for his working eye at one time, but found after a while that he could do as well without it. At the time the attack narrated below came on he had ceased attending school for about two months. His vision before the attack was taken more than once, when glasses were tried. On May 14th, 1878, it was: Right = $\frac{6}{6}$, and with $\frac{1}{40}$ spherical convex combined with + $\frac{1}{36}$ cyl. = $\frac{6}{5}$, well. Left had convergent strabismus; read 20 Jaeger with difficulty; had been practically blind for a long time. On Sept. 5th the sight of the right (good) eye began to fail, and by the 9th he "could not see anything." When he went to the hospital on the 10th only 18 Jaeger could be seen with difficulty, and the optic disc was very indistinct and hazy. Five grains of iodide of potassium were given three times a day. On the 17th the sight had already much improved. Vision = $\frac{6}{12}$, and 8 Jaeger could be read at from six to ten inches; not much improved by glasses. The disc of right eye was congested and hazy; veins enlarged and somewhat tortuous; pupil active. Left eye (strabismus and old defect): Disc healthy. On the 26th the sight was much better. Vision = $\frac{6}{9}$; slowly improved to $\frac{6}{6}$. Read 1 Jaeger fairly at from six to eight inches, unaided. On Oct. 3rd vision was the same; disc still too red, its border not clear, and the veins distended.

The visual field was not taken, nor was he tested for colours. Probably, however, there was some defect for red (i. e., central scotoma), for when the attack came on he found he could not tell gold from silver, nor "bright scarlet from brickdust." Even as late as Oct. 14th, when he considered himself quite well, he described "a slight mist or whitish tint" on objects, as if the centre of the field were not perfectly restored. For several days before the sight began to fail he had pain, chiefly of a dull character, but sometimes shooting, on the same (right) side of the head, passing behind the ear and to the back of the neck. He "thought it was a stiff neck." At the same time the eyeball was (according to his statement) reddened, and though not spontaneously painful, would hurt him if he looked up and to his left, "as if the eye was strained." He also noticed as peculiar at the time that he was "sweating so freely in the head," but did not think it was unilateral.

On the evening before the failure he had been saying to his companions how good his sight was, and had tested it by counting a long line of gas jets at a distance. This may be borne in mind in reference to the possible influence of dazzling by bright light in determining a change in the optic nerve. It may be added that the patient was not subject to stiff neck, nor had he ever had facial or any other paralysis. His father had for twenty years been an inmate of an asylum for "recurrent mania," attributed to a fall on the head.

CASE 2.—E. W. G——, aged thirty-three, a wheelwright, tall, strongly built, rather pale, with dark hair, was under the care of Dr. Greenfield for right facial paralysis for nearly a year before Mr. Nettleship saw him. It was attributed to sleeping in a keen draught, was treated by galvanism, and recovery was very nearly, if not quite, perfect when Dr. Greenfield sent him to Mr. Nettleship (on Oct. 10th, 1878) for examination of his left eye, which had recently failed.

The man's account of his eye symptoms was as follows. On Sept. 26th he complained to Dr. Greenfield of "flashes of light" in the left eye, followed by pain passing over to the back of the head. On the 29th, whilst reading, he gradually became aware of some defect of sight, and found that it was in the left eye. The exact rate of failure after this was not noticed. The same shooting pain continued, especially when he made sudden movements of the head or eye. He noticed also after the defect came on, that the left eye was not "so wide open" as the right.

Oct. 10th, 1878.—Vision: Right $\frac{6}{6}$, and 1 Jaeger at six inches, refraction normal; left, only counts fingers, seeing them best at periphery of field, especially above and below (great defect of centre of field). The pupils were equal and active, but the left acted less freely than the right to direct stimulation. The movements of the left eye were perfect, but the palpebral fissure was decidedly narrower than the right, and the lids rather puffy. There was no congestion of the eye; there was doubtful tenderness over supra-orbital notch, but none on pressing the eyeball back into the orbit.

With the ophthalmoscope the left disc was seen to be doubtfully redder than the right, but no definite changes could be made out. The retinal vessels in both eyes pulsated with unusually little pressure. There was no evidence of vaso-motor paralysis. He was not rheumatic, nor liable to neuralgia; had occasionally had a slight "stiff neck." Six years ago he had gonorrhœa; no proof of syphilis.

On the 18th he was ordered six grains of iodide of potassium, and twenty minims of solution of perchloride of mercury three times a day, and a blister to the left side of the head every night. On the 20th, on getting up he found his sight had begun to improve. On the 31st, the left eye could read words of 4 Jaeger held close, and $\frac{6}{18}$ (bad light). The fundus as before; no definite changes.

Nov. 7th.—Right, 1 Jaeger fairly and $\frac{6}{9}$; left, 1 Jaeger at from 9 in. to 12 in., but not so well as right and $\frac{6}{9}$. Pupils equal and active. Left palpebral fissure still rather narrower than right, but lids not puffy. Had only used five blisters in all.

On Jan. 2nd, 1879, he still did not see quite so well with left as right. He read 1 Jaeger with each, but the words "look brighter" with the right than the left. His visual field was not taken carefully, nor was he tested for colours until he could again read 1 Jaeger, when he showed no defect.

WANDSWORTH INFIRMARY.

SUPPURATIVE OTITIS; INTRACRANIAL ABSCESS; PYÆMIA; CEREBRO-SPINAL MENINGITIS; DEATH.

(Under the care of Dr. JAMES ALLEN.)

B. D——, a woman aged nineteen, was admitted on the 6th January, 1880, and died on the 10th. She had been rather deaf from childhood; and since four years of age she had been subject to fits. These came on at intervals of about a year, several then occurring in succession. Six years ago she had disease of the left tibia, which continued for two years with discharge of pus. Shortly before the present illness she was a domestic servant, and had to give up work on account of increased deafness. Drops for the ears were prescribed on her application at an Ear Infirmary. On the 19th December, 1879, she had pain in both ears. She was now unable to attend the Ear Infirmary, but the pain being increased by the drops, she discontinued them. Intense headache and vomiting soon followed, and the former symptom persisted. When raised in bed she could not hold up her head, and screamed unless it were supported. She had had several fits in the course of her present illness; she became paraplegic about a week before admission, and a few days later complained of pain in the right chest. The bowels had been regular. She menstruated on Dec. 29th; was unmarried, and had no children. There was a family history of phthisis.

On admission she had motor paralysis of the lower extremities, and seemed to suffer great pain on the slightest manipulation of the head or spine. During examination she showed much irritability of temper. The skin was pale, there was no eruption, but the skin was hyperæsthetic and dry with pungent heat. Tache cérébrale was well marked. Temperature in axilla 103·5°. There were sordes on the lips and teeth; the tongue was covered with a dry brown coat, but the edges were clean and red. There was great thirst. The pupils were dilated, equal, and contracted to light; the conjunctivæ were injected. The girl was very deaf in both ears. The cephalalgia was chiefly frontal, but also general, though not so severe as it had been. There was rachialgia along the whole length of the spine, increased

by pressure and movements; the dorsal muscles were very rigid. The heart's action was tumultuous. Pulse 144, weak. There was increased frequency of respiration, and other evidence of pleuritis in both chests. The area of liver dulness was enlarged. The motor paralysis of the limbs was not quite complete. She had control over the bladder and rectum.

She was delirious during the night. Next morning the temperature was 103°; pulse 130. Milk and beef-tea were taken readily. Cold to the head was not well borne, and did not seem to give relief. Ordered quinine and ammonia in mixture, and to have fifteen grains of chloral at night. The evening temperature 103·2°; pulse 118. On the 8th the morning temperature was 103°; pulse 120. Evening temperature 102°; pulse 98. Had a good night. On the 9th the morning temperature was 104°; pulse 120. She had been delirious. The skin was very sensitive, when uncovered the patient becomes irritable in temper, and said she was "told," meaning cold. Evening temperature 98·4°; pulse 110. On the 10th the morning temperature was 102·2°; pulse 156. She thought herself better. The pulse was, however, very feeble, and the respirations were rapid. She died in the evening, having perspired very freely during the last hours of life. Temperature in axilla two hours before death was 98·6°; pulse 160. Skin then moist and cool, but the patient expressed herself as feeling intolerably hot. With this exception skin had been notably dry throughout illness.

Necropsy, forty-eight hours after death.—Rigor mortis fairly marked. The left leg presented a large cicatrix over the internal aspect of the tibia, and there was thickening of the bone. The mammæ were not developed. The pupils were equal and dilated. The scalp was thick, not adherent; skull cap thin and hard. The dura mater was firmly attached to the bone, its vessels were much injected. There was opacity of the arachnoid and œdema of the subarachnoid; the pia mater was thickened, and abnormally adherent to the brain, and the vessels were intensely injected and of a bright scarlet hue. The brain was notably firm throughout, the pineal gland and pituitary body included, the cut surface showing numerous puncta cruenta. There was very little fluid in the lateral ventricles. On the ventricular surfaces there were numerous large, full ramified vessels. The sinuses of the dura mater were distended with blood clot, partly ante mortem, chiefly post mortem. On the anterior surface of the petrous portion of the right temporal bone, near its base and upper border, a rounded tumour the size of a small hazel nut presented itself on removal of the brain, not adherent, but indenting slightly the lower surface of the right temporo-sphenoidal lobe, and at this part there was slight limited softening of the brain tissue. The tumour was due to a collection of pus between the dura mater and the bone; there was also a small blood clot. The bone was removed and the internal ear examined. The membrana tympani and ossicula were gone. There was suppuration in the middle ear and mastoid cells, and in a more marked degree of the internal ear; the surrounding bone was infiltrated with pus, and an intracranial abscess could be seen situated chiefly over the tympanum. On the left side there was suppuration of the middle ear alone, with perforation of the membrana tympani and absence of the ossicula auditus, except the stapes. Weight of cerebrum thirty-eight ounces, of cerebellum and pons four and three-quarter ounces. The spinal canal was laid open throughout its whole length from behind. The cerebro-spinal fluid was not increased. The spinal cord in the upper half of the cervical portion was abnormally firm; the vessels on its surface were full and tortuous. The remainder of the cervical and upper half of the dorsal portions were much softened, bulging on section, and adherent to the membranes, especially posteriorly. There was also marked injection of the pia mater. The rest of the cord was of the consistence similar to the upper half of the cervical portion. The pericardium contained two ounces of pale-yellowish, non-turbid fluid. The right side was distended with dark blood, not firmly clotted; the left ventricle was empty in diastole. The aortic valve had only two flaps, and was incompetent from thickening and rigidity. The left ventricle was considerably hypertrophied. The aortic arch was dilated, thickened, and slightly atheromatous. The right pleural cavity contained ten ounces of blood-stained serum. The lower lobe of right lung was hepatised, and at its base there was a circumscribed empyema, containing about two ounces of fetid pus, and arising from a small abscess on the lung-surface. On the base and posterior border of this lung there were found several similar superficial purulent collections, but over these the pleura had not given way. In the bronchi there was muco-purulent fluid; the bronchial mucosa dusky red. There was no fluid on the left chest, but there was general opacity of the visceral pleura, with here and there patches of fibrinous exudation. The parietal pleura was injected. The left lung at its base was œdematous and congested, and several small projections on the posterior border, on section, were found to be sub-pleural superficial infarcts in various stages of suppuration. The bronchi contained muco-purulent matter, but the mucosa was of more normal colour than that of right bronchi. The apices of lungs were quite free from disease. The liver was large, amyloid, but did not contain any purulent collection; weight eighty ounces. The spleen was soft; weight ten ounces. The kidneys were large, amyloid, congested; weight seven ounces each. The intestines were normal; no peritonitis. The uterine cavity contained viscid mucus, which also projected from the os uteri, the mucosa of the uterus being dusky red; no irregularity of surface. Both Fallopian tubes contained a thick whitish fluid; this fluid was found to consist chiefly of cylindrical epithelium; cells rather small, and of equal size. In the right ovary there was a recent corpus luteum.

In this case the absence of lymph or pus in the brain and cord—a usual anatomical character of cerebro-spinal meningitis—is peculiar; also the absence of sweats as a symptom of pyæmia.

HITCHIN INFIRMARY.

CONGENITAL PHIMOSIS, WITH PREPUTIAL CALCULUS.

(Under the care of Dr. O. H. FOSTER.)

On February 17th, 1880, B. M——, aged three years, was admitted into the infirmary. His mother stated that since he was five months old she had noticed that he had difficulty in passing water, which had gradually increased up to the present time; latterly he had almost constant desire to make water, which dribbled away from him, especially if he walked about. He suffered considerable pain at the end of the penis, which was aggravated by any attempt to make water. The urine was frequently thick and gritty. There had been a gradual enlargement of the end of the penis, the extremity of which on admission presented to touch a stony hardness, very unusual in cases of ordinary phimosis.

On February 23rd Dr. Foster performed circumcision, and found a calculus in a cavity, formed between the glans penis and the tightly constricted preputial orifice. The calculus slipped out easily, when the unnaturally thickened mucous membrane investing it was slit up. The operation was completed in the usual manner, and the child got perfectly well in a few days.

The calculus was about the size and shape of a sparrow's egg, its weight was fifty grains; its external surface presented a uniform, smoothly polished, phosphatic appearance; on section it was clearly, simply a phosphatic concretion, without any nucleus.

The case is, as far as Dr. Foster knows, a unique one.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Necrosis of Lower Jaw.—Volvulus of Ileum.—Imperforate Rectum.—Strangulated Hernia.—Sarcoma of Liver.—Ossifying Chondro-Sarcoma.—Talipes.—Divided Tendo Achillis in Pseudo-Hypertrophic Paralysis.—Syphilis.—Blood in Yellow Fever.—Aneurism of Aorta.—Cock's-comb Moles.—Congenital Syphilis.—Complete Excavation of Lung.—Acute Atrophy of Liver.—Malformation of Arm.

THE ordinary meeting of the Pathological Society of London was held on Tuesday, May 4th, the President in the chair. There was a small attendance of members. Several very interesting specimens were exhibited, and it was necessary to prolong the meeting beyond the usual hour. Mr. Parker showed in the ante-room a case of cyst in the back of a young child, which had recently very rapidly

developed. Dr. Heneage Gibbes exhibited a longitudinal section through the whole kidney, it was double-stained, and so successfully prepared that the course of the renal tubules from glomeruli to papillæ was easily traced. It was cut with a microtome, and was probably one of the largest sections yet exhibited.

Mr. CRIPPS exhibited a Sequestrum consisting of nearly the whole of the Lower Jaw from a case of Cancrum Oris. A child two years old was admitted into St. Bartholomew's Hospital under Mr. Savory's care, with a history of having been perfectly well till a fortnight previously, when she was attacked with fever, loss of appetite, and a swelling over the right side of the jaw, which at the time of admission extended from the last molar to the canine tooth; a week later this swelling had involved the whole of the lower jaw. The swelling was hard and very defined; ulceration set in in the older part, and then after an interval the whole of the involved soft tissues sloughed, and the child died. The sequestrum was removed from the slough at the post-mortem; it was then found that the disease had begun to involve the upper jaw also. The case differed from cancrum oris in some particulars, especially in its slow course. Subsequently it was ascertained that a favourite cat with which the child had been playing had suffered from swelling of the nose and mouth, with fetid discharge, for which it was killed. Hamilton described the disease a century ago, and since his time little, if anything, had been added to our knowledge of the affection.—Mr. MORRANT BAKER had seen the case during life; although it was more like cancrum oris than anything else, it certainly did not present the usual features of this affection. He thought it fairly probable that it might be a special disease.—Dr. THIN asked if the child had taken mercury at any time.—The PRESIDENT remarked that it was quite unusual for cancrum oris to affect the bone so extensively; had the child been exposed to the fumes of phosphorus?—Dr. DOWSE inquired if the child had had measles, for he had had several cases of cancrum oris as a sequel to measles; in one instance he had three patients in one house, all of whom soon after recovering from measles had extensive necrosis of the lower jaw; two of them died. The disease in these cases seemed to begin in the alveolar process.—Mr. C. MACNAMARA considered it to have been a case of acute necrosis of the jaw from periostitis, such as is often seen in the extremities of young children, and that it could hardly be called cancrum oris.—Dr. SHARKEY had seen a case of cancrum oris in St. Bartholomew's Hospital following measles, in which the right half of the necrosed jaw came away, and the patient recovered.—The PRESIDENT, on calling on Mr. Cripps to reply, remarked that the Society had only seen the sequestrum, while Mr. Cripps had seen the whole course of the case.—Mr. CRIPPS stated that there was no history of mercury, phosphorus, or measles, and he could not agree to consider it acute necrosis, for it began first at one part, then slowly spread, and later on again spread and reached the upper jaw; the necrosis was secondary to the sloughing of the soft parts.

Mr. CRIPPS showed a specimen of an infant who had died from a Volvulus of the Ileum. When three days old it was admitted into St. Bartholomew's Hospital, under Mr. Willett's care, because it had passed no motion, and had vomited meconium. The anus appeared to end in a cul-de-sac an inch from the surface; the belly was moderately distended. Mr. Willett opened the abdomen above the right groin, and opened the first coil of intestine that bulged forwards. The child died two days later, and at the autopsy signs of general peritonitis were very evident. The whole of the colon and rectum was found to be perfect and patent, but firmly contracted into a cord like a pipe stem. Two feet above the cæcum was a volvulus in the ileum, with distension of the gut above. He thought that possibly a large injection might have succeeded in undoing the volvulus. The case was of great interest for diagnosis. Mr. Cripps at the same time exhibited a specimen of Imperforate Rectum, also admitted to the hospital, under Mr. Willett, when three days old, for vomiting, and no motion passed since birth. The anus was perfectly formed, and the finger could be passed inside for about half an inch; belly moderately distended. Operation was refused by the father, and the child taken away. Thirty days later she was brought back again apparently quite well; the abdomen was distended; food was taken well, but three or four times every day she vomited up fæcal material. Mr. Willett passed a trocar upwards from the termination of the anus, but only a little serous fluid escaped. Death from peritonitis ensued; and at the post-mortem examination the anal aperture was found three-quarters of an inch long, and the distended pouch-like rectum was seen to end just above it; the trocar had penetrated the peritoneal pouch between the two. Mr. Cripps thought it a good guide for diagnosis that if the anus is well formed the rectum is within reach, and ought to be searched for. If the trocar had been directed back towards the sacrum no accident would have occurred. It was noteworthy that the child was living on apparently well with this condition unrelieved. In the *Gazette Médicale* a case is mentioned of a girl, thirteen years of age, without rectum and vagina, who took her food well, and every third day vomited up pure fæcal matter. The girl is also stated to have passed urine through the nipples four times a day, which threw doubt upon the whole case.—Mr. MORRANT BAKER having seen the first of these two cases, bore testimony to the difficulty, if not impossibility, of making a correct diagnosis. Apparently the gut was completely occluded three-quarters of an inch from the anus, the only peculiarity to the touch being the sensation as of a slight rent in the mucous membrane.—Mr. MORGAN asked, if in the first case any attempt were made to inflate the gut, or distend it with water, and why Littré's operation was performed on the right side instead of the left; was it because in these cases the sigmoid flexure so often curves over to the right?—Mr. CRIPPS stated that the rent mentioned by Mr. Baker was no doubt the result of the previous examinations. He had only seen the case as pathologist, and did not, therefore, feel called upon to justify the course of treatment pursued.

The PRESIDENT showed a specimen of unrelieved Strangulated Femoral Hernia obtained from an old lady who died after seventy-two hours' strangulation; a few hours before death, after getting out of bed for the purpose of trying to pass a motion, collapse set in, which proved fatal. On post-mortem examination it was found that there was an entire absence of peritonitis. The gut below the hernia was pale, empty, and contracted; while that above was distended and intensely congested, the congestion extending into the attached mesentery. There was no rupture of the intestine or other local lesion to account for death, unless we fell back upon abdominal shock. The interest of the specimen was the evidence it afforded that death from an unrelieved strangulated hernia was not from peritonitis, which, in his opinion, did not occur until the injured gut was returned into the belly by means of taxis or kelotomy.—Dr. S. WEST thought this case was a pathological explanation of the condition of abdominal shock. The patient had really been bleeding into the abdominal vessels, until the anæmia of the brain and other parts was fatal.—Mr. WALSHAM asked if the brain was found anæmic.—The PRESIDENT stated that it was not examined.—Dr. THIN thought that the injury to some of the capillaries of the distended gut was the cause of collateral congestion, and that the condition was explicable on this mechanical ground.—The PRESIDENT was unable to explain the congestion of the gut above the hernia.

Mr. R. W. PARKER showed a specimen of Diffuse Sarcoma of the Liver. An infant three weeks old was found by Dr. Townsend, of Kensington, to have a very large liver, which almost filled the whole abdomen. Mr. Parker saw it soon after; the surface of abdomen was irregular, veins distinct, slight œdema of legs and belly wall, no ascites, very little intestinal resonance. The child died when five weeks old. At the autopsy, which was limited to an examination of the abdomen, the liver, which weighed thirty-three ounces, was of a dark-plum colour, quickly changing to bright red on exposure to the air. A large quantity of blood escaped on section, and then a new growth, in masses varying in size from a millet seed to a walnut, was found to be very largely diffused through the organ. The gall-bladder was only rudimentary. A second growth of similar nature was found between the left kidney and the spleen, but not involving either. The other organs were quite healthy. The liver was found to be densely infiltrated with small round granular cells, even in places where to the naked eye there was no deposit; and nowhere could healthy liver-cells be found. It was, no doubt, a congenital affection. There was no history of syphilis, and he thought the fact of the disease

being limited to one organ, and having given rise to a secondary growth, was opposed to its being of syphilitic nature.—Dr. PYE-SMITH suggested that the case resembled one shown to the Society some years ago by Dr. Wilks, and was inclined to call it diffuse interstitial hepatitis rather than sarcoma. A diffuse sarcoma of this kind would be a unique observation, and a primary sarcoma of the liver of any kind is exceedingly rare. It was impossible to be certain that the other organs were healthy, for the autopsy was only partial. If the secondary growth was in a lymphatic gland, it was as likely inflammatory as sarcomatous; whatever the cause of the affection might be, he certainly thought it better to speak of the case as one of interstitial hepatitis.—Dr. COREY asked if the spleen was quite healthy.—The PRESIDENT inquired what was the negative evidence of syphilis, and suggested that the specimen should be referred to the Morbid Growths Committee. He had seen a similar case in which there was conclusive evidence of syphilis.—Mr. PARKER replied that the spleen was not enlarged. The father and mother were both questioned as to syphilis with negative results. There were no signs of syphilis in the child. He examined the lungs, and found them healthy. Mercurial inunctions had no influence upon the growth of the liver, and he thought this of considerable importance, as syphilitic growths yield very readily to mercury. General syphilitic hepatitis is quite a pathological curiosity, and he thought there was no difficulty in holding the view that in this case there had been an arrest in the development of the liver, and a persistence of the early embryonic condition.

Mr. PARKER next exhibited some drawings and microscopical sections of a case of Ossifying Chondro-sarcoma. A child, a year and a half old, had been suffering for three months from disease of the left knee, at first simulating arthritis; the inguinal glands on the same side were enlarged, and just before death the right knee became affected; death took place from sudden dyspnœa. At the post-mortem examination the tumour was found to involve the whole of the left femur except the head and great trochanter, which were still cartilaginous. The growth did not extend into the knee-joint, but closely surrounded the capsule and spread down to the tibia. In the centre the growth was almost entirely composed of bone; this was surrounded by a zone of cartilage, while the periphery consisted of fibrillated cartilage rich in cells, and was continuous with the surrounding tissues. The left lung contained a deposit of similar nature; the other organs were quite healthy.—Mr. PEARCE GOULD asked whether the tumour had actually infected the enlarged inguinal glands, and whether any growths were found in the veins of the thigh. In a similar case under the care of Mr. Christopher Heath, in University College Hospital, the inguinal glands were enlarged, but no signs of secondary deposit were found in them. He also thought it common for these growths to extend into the veins.—Mr. PARKER replied that there were no growths into the veins, and that the glands were infected with the tumour, showing the same structure as the other formations.

Mr. PARKER then showed two specimens of Congenital Talipes, the one of T. varus in which the fibula was displaced behind the tibia, the other of T. calcaneus. The specimens were of interest as bearing upon the cause and also the treatment of the deformities; he looked upon the change in shape of the bones as the primary affection; they are certainly twisted in T. varus, and it would be strange if they were to develop normally. The change in the muscles—the one set being lengthened, the other shortened—is secondary, and not dependent upon nerve changes. He could not understand how the condition of the muscles in T. calcaneus could be produced by paralysis.—Mr. ADAMS remarked on the great rarity of specimens of these deformities, and the consequent value of Mr Parker's. He thought the position of the fibula in the first case was apparent rather than real. He could not believe that talipes was due either to malformation of the bones or to paralysis; the deviation in the bones was not greater than could be explained by the foot remaining in its position from the fourth to the ninth month of pregnancy; he had never seen a case of congenital paralysis. His view was that the disease was of nervous origin, and its exact nature he was ignorant of.—The PRESIDENT asked Mr. Adams whether his remarks applied to both varieties of talipes; from his experience the majority of cases of marked T. calcaneus are combined with spina bifida, with at any rate some degree of paralysis, certainly paralysis of the sphincters.—Mr. ADAMS stated that he had seen more cases of T. varus than T. calcaneus in connexion with spina bifida. He thought talipes calcaneus was due to position or "packing" *in utero*.—Mr. PARKER thought there was nearly always talipes in spina bifida, and most commonly T. calcaneus. The specimen of T. varus was from a monster, that of T. calcaneus from an otherwise healthy child. He thought the mechanical theory explained all the facts, and that if the disease were of nervous origin treatment would be less successful than it is.

Mr. ADAMS related the sequel to a case of Syphilitic Gumma recorded by him in vol. xx. of the Society's Transactions. The patient lived seven years; the tonsils, palate, pharynx, and larynx became involved, and tracheotomy was performed; the tube was worn for a year and then removed, death occurring a week later from asphyxia, apparently from disease lower down than the larynx. The patient was not benefited by drugs; the use of black wash for three or four days would produce salivation, and one-sixth of a grain of iodide of potassium gave rise to distressing nervous symptoms.—The PRESIDENT thanked Mr. Adams, and expressed a wish that other members of the Society would follow his example and complete the record of published cases.

Dr. SQUIRE exhibited some microphotographs of the blood, and black vomit in yellow fever, and of the air of the ward, taken by Dr. Sternberg, of the United States Army. No microzymes were found in the blood or in the air; but the white corpuscles in all the cases showed fatty granules upon them. Some specimens of spirilla found in the bilge water of the ship in which the outbreak occurred were also shown. Dr. Cunningham had described fatty degeneration of the leucocytes in cases of starvation.—Dr. THIN observed in two of the photographs rod-like bodies resembling bacteria, and he suggested that the so-called fatty granules in the leucocytes were really micrococci.

Dr. S. WEST showed two specimens of complete Excavation of the Lung obtained from patients recently in the Victoria Park Hospital. One of the patients was believed to have a localised pneumothorax, and was tapped for this. The second case was known to have a large cavity, and suffered from cough and dyspnœa: he improved, and was about to leave the hospital when he was attacked with severe hæmoptysis, which continued for seven days and then ended fatally. In each case the wall of the enormous cavity was formed of the remains of the lung and thickened adherent pleura. In the latter the cavity was filled with blood-clot, which came from a large rupture in an aneurism of one of the branches of the pulmonary artery close to the root of the lung. It is very rare to find a cavity extending beyond one lobe; Rokitansky mentions a like case, which also ended fatally, from rupture of an aneurism. The cases were very chronic, and might almost be called latent.

Dr. S. WEST also showed a specimen of Acute Atrophy of the Liver, from a child six years of age. She was admitted to the hospital with a history of one week's illness, vomiting, delirium, and slight œdema of ankles. The head was drawn back, knees raised, and there were fits of screaming, so that the case simulated meningitis. The temperature was 100° to 101°; pulse and respiration very rapid; the liver was found to be much enlarged, and to reach from the fifth rib nearly to the umbilicus; this rapidly decreased, and in four days hardly reached the ribs. Both the vomited matter and the stools contained altered blood. There was no jaundice. Post mortem the lungs were found congested, heart and kidneys fatty, spleen small, liver very small, weighing only sixteen ounces; the outer part of the lobules were grey, inner part red; with the microscope it was seen that the middle zones of the lobules were made up of cells distended with large drops of oil, while in the centre the fat had disappeared, only a granular nucleus remaining. It was acute fatty degeneration, not acute yellow atrophy. It was learnt that this and another child playing in the street ate something from the gutter, and the other child was also taken ill and died.

Dr. ALLEN STURGE showed a finely-grown man, whose left arm was malformed. It was perfect down to the elbow, and the forearm was represented by a short stump ending in a conical projection over the radius. The ulna was shorter, and over it the skin was umbilicated. The fingers were represented by five little nodules, the outer one of which was the largest, and, with its neighbour, was tipped with a distinct nail. Sir James Simpson spoke of such cases as due to intra-uterine amputation. It was a question whether they are not really examples of arrest of development.

The following card specimens were exhibited:—1. Tendo Achillis divided in Pseudo-hypertrophic Paralysis; by Mr.

W. Adams. 2. Aneurism of Arch of Aorta rupturing into Trachea; by Dr. Orlebar. 3. Two Drawings of Cock's-comb Mole; by the President. 4. Specimens of Ostitis and Periostitis in Congenital Syphilis; by the President. 5. Skull in Congenital Syphilis; by Dr. Abercrombie.

The meeting then adjourned.

MEDICAL SOCIETY OF LONDON.

Neurasthenia.—Popliteal Aneurism, treated by Esmarch's Bandage.

AT the meeting on April 26th, F. J. Gant, Esq., President, in the chair,—

A paper was read by Dr. DOWSE on "Neurasthenia, or Nervous Exhaustion, and its Treatment." Dr. Beard, of New York, was the first to draw attention to this disease, and Erb, in Ziemssen's Cyclopædia, devotes a chapter to "Neurasthenia of the Spinal Cord." Dr. Dowse had for many years discarded the term neurasthenia as being vague and unsatisfactory, for he thought that any arrest of nervous function would be revealed by structural changes, but he had been compelled to change his view, and to admit that the term was applicable to a large number of nervous derangements. Sleep was due to nervous exhaustion, consequent upon an arrest of function in the hemispheres of the brain, and during this temporary arrest of function the trophic or nutritive elements of the brain were being recharged with nutritive pabulum. An asthenic state of the nervous system might be vital and general, or local and circumscribed, and an illustration of the former condition was seen during the course of many acute diseases, especially in diphtheria, where death generally took place from exhaustion of the nervous centres controlling the heart. In the inorganic world matter and energy are indissolubly united; we know of matter only through the transformation of energy, and we recognise energy only through its influence on matter. So it is in the organic world. The brain, and every individual cell composing it, is a factor as well as a nidus for the conservation of energy. Molecular displacement in the nerve-cells meant the exercise of disruptive energy leading to a failure in the power of resistance, a diminution of vitality, a lowering of tension, a decrease of tone and an exhaustion of the nervous system—in fact, an arrest of function and molecular inertia. The energy or force with which a nerve cell is endowed may be held to consist of—(1) active or automatic energy; (2) complementary, (3) residual or latent. Most functional diseases of the nervous system are due to the want of an equable development of stabile energy. After further consideration of this abstruse subject, Dr. Dowse considered the differential diagnosis between neurasthenia remaining for years a functional affection, and neurasthenia due to intractable arrest of development in the nerve-centres, and ultimately to organic disease—e.g., such as were associated with some forms of mental derangement and many forms of paralysis. He firmly believed that many of the incurable cases of insanity, locomotor ataxy, progressive muscular atrophy, and many other disorders of the brain and nervous system, commenced as a neurasthenia, and were then quite amenable to treatment. He then reviewed the signs and symptoms, bodily and mental, of exhaustion of the brain and spinal cord, drawing attention to the effects produced by overwork and worry. As to treatment, he agreed with Dr. Beard, that there was no routine plan; each case must be studied closely and carefully by itself. Iron and quinine were much less valuable than many other drugs, such as arsenic, phosphorus, and strychnine. He did not agree with many observers concerning the value of galvanism or faradisation; for in his hands, although it never failed to give great relief during its application, and it may be for some time after, yet the good effects soon wore off and left the patient no better. The drug on which he chiefly relied was opium—the pure watery extract—in doses of a quarter of a grain three or four times a day. He concluded by referring to the benefit of proper feeding, and the judicious use of stimulants, travel, and rest.—Mr. SPENCER WATSON had frequently met with cases suffering from eye symptoms, which he regarded as due to nerve exhaustion, especially in children.—Dr. ROUTH remarked that the age was one in which all were over-worked, over-worried, and over-taxed, and he considered that these cases were suffering from a form of disease akin to insanity. He advocated the administration of phosphorus, and of a fish diet, but he was adverse to the administration of bromides, unless occasionally in combination with phosphorus; and he could not agree with the author in his praise of opium.—Dr. DAY advocated moderate doses of opium, but had been disappointed with phosphorus. In children arsenic and quinine were of good effect.—Dr. THOROWGOOD considered sleep to be most important, and advised graduated doses of morphia or opium, good nutritious food, and fresh air.—Dr. DOWSE replied. He considered sleep a valuable curative agent. He had given phosphorus, but had been disappointed with its effect. Chloral hydrate was useful.

Mr. GOODSALL brought forward a case of Popliteal Aneurism cured by Esmarch's bandage, and exhibited the patient, who was a porter thirty years of age. He was admitted into the Metropolitan Free Hospital on March 5th, 1880, with a popliteal aneurism an inch and three-quarters to two inches in diameter, produced apparently by a strain three months previously. After being kept in bed and on low diet for six days the aneurism became smaller and less painful. On March 14th Esmarch's bandage was firmly applied from the foot up to the lower border of the aneurism, then obliquely over the patella to a point on the outer side of the thigh about two-fifths of an inch above the lower end of the femur, and from that point the thigh was firmly bandaged from above downwards to the upper border of the aneurism. The bandage was again carried upwards, and the elastic tubing tightly tied over the upper part of the bandaging. The bandage was kept on from 10.25 A.M. until 2.20 P.M., the upper part of the bandage having been removed one hour previously (a tourniquet being kept on the femoral artery during this alteration). Much pain was experienced in the thigh, necessitating morphia injection. On removal of the bandage the aneurism felt firm and free from pulsation. No anæsthetic was given. On the 17th pulsation felt in posterior tibial, and on the 20th in the anastomotica magna. On April 26th the right knee measured fourteen inches and a half in circumference, or one inch less than before the Esmarch's bandage was applied. — The PRESIDENT congratulated Mr. Goodsall on the success obtained, and thought this method preferable to that of flexion; but questioned whether it was suitable to large aneurisms.—Mr. ROYES BELL expressed satisfaction at the result of the treatment. He did not consider the aneurism a small one, and thought the method more thorough than compression, which was often exceedingly painful, and with difficulty kept up.—Mr. PEARCE GOULD said that whereas in compression by tourniquet or by the hand some circulation was possible, in the treatment by Esmarch's bandage absolute stasis was obtained. He thought a large aneurism with a large mouth the best form of aneurism for this treatment. Pulsation gradually returns unless the artery becomes plugged, and it is of importance to occlude the artery as well as the aneurism, and this is better secured in a large aneurism communicating freely with the artery.—Mr. GOODSALL, in reply, said that the communication in this case between the aneurism and the artery was very free. Esmarch's bandage had been kept on for two or three hours in several cases without any damage to the limb, and in one case—Mr. Barwell's (see THE LANCET, January 28th, 1878) for five hours. Dr. Walter Reid, who was the first to use Esmarch's bandage in the treatment of popliteal aneurism, removed the bandage as soon as he had adjusted the tubing.

NORTHERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

AT the combined meeting of the North-Western, Northern Counties, and Yorkshire Associations of Medical Officers of Health, presided over by Mr. S. W. North, two papers were read; one by Dr. Hime, of Sheffield, on "School Children and Whooping-cough," the other by Mr. F. Vacher, of Birkenhead, on "Health Economy."

Dr. HIME, referring to the prevalence of whooping-cough among young children in Sheffield and elsewhere,

pointed out the seriousness in this connexion of the clauses in the Education Act which required the attendance at school of all children between five and thirteen years of age. It was desirable that School Boards should have the power of appointing medical inspectors, in order to insure the non-attendance of scholars affected with contagious disease. He repudiated the theory that there was a causal relation between whooping-cough and measles, basing his objection on statistics drawn from England during the last twenty-five years. He thought pertussis was not a disease specially of cold weather. More females than males died of the disease.

Mr. F. VACHER explained that by "Health Economy" he meant the management of health, being careful of it, protecting it from known sources of danger, and providing for its generation, nutrition, and preservation. Health saved was better than health gained. Referring to heredity, he classed its manifestations as transmissions of (1) faults of excess, (2) bad, morbid products, and (3) debased normal constituents. The author advocated the expediency of denial of the right of marriage to persons known to be suffering from hereditary and constitutional disease. With regard to nutrition, he deprecated the deprivation of infants of their natural food, an evil of the blame of fostering which he could not altogether acquit the otherwise useful *crèches*. After alluding to the advantages of pure air and water, and the evils of excess in eating and drinking, Mr. Vacher concluded by enumerating some of the needs most urgently demanded for the economy of health—viz., the entire prohibition of infant life insurance; the amendment of the Infant Life Protection Act, so as to provide for the registration and inspection of every house where a nurse child was received by other than relatives; the committal of adult men or women of known intemperate habits and unable to exercise control over themselves to proper hospitals for treatment and restraint; the extension of the Contagious Diseases Acts; the isolation of the initial subjects in the outbreaks of epidemic disease, and several others.

New Inventions.

IMPROVED URINE-GLASS FOR THE COLLECTION AND EXAMINATION OF URINARY DEPOSITS.

THE removal of urinary deposits by means of a pipette is an awkward and unsatisfactory mode of procedure, and several ingenious contrivances have therefore been devised to facilitate their collection and removal. Small glass trays with glass handles have been recommended; the tray is placed at the bottom of the urine-glass, and when the urine has deposited the tray is raised by means of the handle, and the sediment examined. In this way, however, the deposit is removed *en masse*, and successive layers cannot conveniently be examined *seriatim*. To obviate this, urine-glasses with glass or vulcanite stop-cocks at the bottom to draw off the sediment have been made; but the fittings are apt to get out of order by encrustation with phosphates unless considerable care is expended in keeping them clean. Messrs. Krohne and Sesemann have, however, on Dr. Ralfe's suggestion, contrived an exceedingly simple form of urine-glass, by which minute quantities of sediment can be withdrawn for the purpose of microscopic examination. The arrangement consists of a slight modification of Mohr's burette; this is shortened and widened, forming a conical cylinder of sufficient capacity to hold two ounces of urine, and width to allow a urinometer to float freely. The sediment is drawn off by means of a glass jet inserted into a piece of india-rubber tubing, which is attached to the neck of the urine-glass. The flow is broken by a spring pinch-cock, which, by compressing the tubing between the neck of the urine-glass and the jet, effectually prevents leakage. On pressing the pinch-cock the compression is removable, and a flow occurs. Three or four pieces of india-rubber tubing fitted with glass jets are supplied with each instrument, and these when not in use are to be kept in a bottle filled with dilute hydrochloric acid, to prevent their becoming encrusted. The

whole instrument, mounted on a black stand with lacquered brass supports, is a neat as well as useful adjunct to the consulting-room table.

VERMICULAR INSTRUMENTS.

DR. J. H. WARREN (America) has lately been actively engaged in adopting the principle of the screw to some old surgical instruments. Thus, he has brought out a hypodermic syringe and aspirator-trocar, and quite recently a catheter, with a screw-like extremity. The screw, which is very open, is carried on the end of a stylet, and projects nearly one centimetre and a half beyond the end of the catheter. It is stated that in cases of tight and difficult strictures, or of obstruction from hypertrophy of the prostate, the rotation of this screw greatly facilitates the passage of the catheter, while in all cases the pain and friction produced by it are much lessened on account of the smaller surface of the instrument in contact with the urethra. Possibly this modification may be of some service, but there are few lessons more important for all surgeons to learn than that the successful passage of a catheter along the male urethra depends far more upon the skill of the guiding hand than upon any modification of the shape, structure, or point of the instrument.

BEQUESTS ETC. TO MEDICAL CHARITIES.—Mr. Cecil Colvin Pitcairn, of Englefield Green, bequeathed £500 to the Royal Hospital for Incurables at Putney. Mr. Mark Firth, of Sheffield, has given £250 to the General Infirmary, £250 to the Public Hospital, £100 to the Jessop Hospital, £50 to the Eye and Ear Dispensary, and £50 to the Nurses Hospital, all in that town. The Hospital for Women, Soho-square, has become entitled to £300, under the will of Miss Reardon. The Charing-cross Hospital has received £101 5*s.* from the Rev. Sir Edward Repps Jodrell, Bart. The Mercers' Company have given fifty guineas to the Royal Infirmary for Children and Women in the Waterloo-road. The building fund of Jervis-street Hospital, Dublin, has received a bequest of £300 under the will of the late Mr. Michael Harry Stapleton, one of the medical staff.

THE LANCET.

LONDON: SATURDAY, MAY 15, 1880.

THERE is a form of benevolence which may be described as giving half of somebody else's goods to heal the sick. A hospital is started, perhaps the necessary building is erected and furnished with money raised by contributions to a common fund, or as a charge on property bequeathed for the purpose. The surroundings, the appliances, in short, the machinery for medical work, may be provided, but the one essential element, the force by which all the good material is to be utilised, and the possible converted into the actual, is wanting. The hospital has no staff of medical men; it is a house of refuge but not of cure, and no single step forward is practicable until the services of experts in the healing art are secured to set the machinery in motion. Yet no philanthropist has ever the smallest misgiving as to the success of a hospital. It is perfectly well known by experience that medical men are only too eager to help in any enterprise of the class, and the difficulty will be to select the best-fitted of candidates for each appointment from a host of applicants. The service to be rendered is difficult and onerous, the sacrifice of time and strength it must entail on the medical men taking office is known to be great, but there is never any lack of willing labourers for the vineyard, and not unnaturally, therefore, no one thinks of paying or even feeling grateful for their services. What is the reason of this strange state of things? Why do medical men hold their dearly-bought knowledge, the knowledge by which they are to live and make their way in the world, so entirely at the disposal of society, that any combination of persons with money enough to provide the sick poor with shelter and food may count certainly upon the gratuitous supply of all the help and energy necessary to make the institution a hospital? Is the charity of medical men so exuberant that they are ever seeking opportunities of "doing good," or do they in some way find that it pays them to give their services to hospitals, and so, after all, the benevolence lies exclusively where the public seem to think it lies—namely, with those who create the opportunities of which the members of our profession almost greedily avail themselves? We want to get to the bottom of this mystery. It is just possible all parties—the promoters and financial supporters of hospitals, the public, and the profession—are labouring under some mistake.

If a particular hospital appointment is the making of a young physician or surgeon, that must be because the services of some medical man, or a number of men, have previously made the hospital. It is no credit to a beginner, however well qualified, to be attached to an institution which has either no reputation or a bad one. A young man may be ruined at the outset by linking his name with that of a fly-blown charity. The reputation earned by a hospital is that of the medical men who have stamped its work with the impress of their skill. Candidates are numerous when there is a vacancy, because the staff has won a name. This is one point the public, and the lay authorities of a hospital especially, do not understand or appreciate; and if it is not only easy to secure the services of medical men, but possible to command a choice of the best, that is the fruit of work done and services rendered by medical men who have spent their time and strength, perhaps worn out their lives, in the enterprise of the charity. It is clearly wrong that all this should count for nothing, or that the promoters of hospitals should set it down to the credit of their own benevolence, whereas it is due to the zeal and skill of their professional coadjutors.

The money value—we say advisedly the money value—of medical services in hospitals is not adequately estimated. If a hospital prospers financially, and draws new bequests and subscriptions, that is because its work as a *medical* charity is appreciated, and this work is the work of its medical staff. There would be no more bequests and subscriptions if it were not for the reputation achieved by the institution as a place where disease is cured and pain is relieved, neither of which could be effected without the aid of medical men. We are sometimes told that these matters must be looked at from a simply business point of view; that, as a matter of fact, medical services are always to be had for the asking, and therefore medical men must find a *quid pro quo* in the service of the hospital. The profession does not object to take up this view, but it claims to point to the circumstance that the reason why it is so easy to obtain medical aid in hospital work is that those of its own members who have laboured in connexion with most of the existing charities have made it an honour to follow in their steps.

It is an error to suppose that the mere fact of being attached to a hospital is, in itself, advantageous to a beginner in practice. Many have found, to their long and great cost, that it is damaging to be connected with a hospital unless the institution has earned high medical repute. The notion that a young man cannot find a sphere for the display of his professional abilities outside a hospital is an exploded conceit. There is ample work for willing and able hands and brains in the midst of the general population, and so far as the direct credit gained, or the fame won, by particular exploits in medicine or surgery is concerned, the free field is the most fertile. It is the professional status a hospital appointment gives which the young medical man justly values, and this status is one which *in no way* depends on the charity of the hospital. That may be small or large-hearted, the institution may be limited in its capacity for the reception of cases or of vast extent, the question the young physician or surgeon puts to himself is how does this institution stand in the eyes of the profession? What is the estimate formed of it by the only competent judges, those who know what practice really is and what it ought to be? If the answer is satisfactory he becomes a candidate, and the answer is no more, and no less, dependent on the lay element or the money element in the charity, than the success of a military expedition rests on its commissariat and ammunition-supply. How *essential* these are everybody knows. Their efficiency may make, or their defects mar, success, but it is the professional aspect of the case which absorbs the mind of the physician or surgeon in the one case, and the soldier in the other. No hospital can command the services of a reputable and efficient staff unless its medical reputation is good and the

success of the institution as a whole is sought by subordinating every other consideration to that of its efficiency as a professional enterprise.

It is useless to blink this rugged truth. It may seem unpalatable at first, but the lay authorities of hospitals must be taught that no amount of building, furnishing, and organisation will create or maintain a *hospital*, or secure to the promoters of such an institution that vantage-point from which they think they command the services of professional men; whereas it is not the lay authority which exercises this influence, but the professional prestige won for the institution as a medical enterprise by the self-denying services of a succession of medical men. There is not a hospital in the country, let it be ever so well provided and endowed, which could carry on its work a single day without the assistance of its medical staff; and if anything occurred to compel the withdrawal of a body of men in whom the profession had confidence, and for whom it cherished a high esteem, the prestige of the institution, which alone makes it attractive to medical men seeking a sphere in life, would be gone. Men of an inferior rank in the medical profession might take the place of those who retired—as now and then happens,—but the first step downwards would have been taken, the damaged repute of the institution would react injuriously on the public mind and, in the long run, unless rescued by a timely revival of loyalty to the profession, it must become disreputable or fail. There is need to speak out plainly on this point. The services of the medical staff attached to hospitals have a distinct and considerable money value to these institutions wholly apart from the personal sacrifices they entail on the men by whom they are rendered. This substantial contribution to the funds of a charity ought to be acknowledged, and the bearing of the lay authorities of hospitals should be less overbearing, and show less puerile affectation of independence towards the professional men to whose good offices they owe the possibility of carrying out the charitable enterprise of which they are proud.

WE have received Indian papers containing official documents relative to the Calcutta Hospital reform. The question of hospital administration is one of very great importance, and the points involved in the case of the Calcutta Hospital appear deserving of careful consideration. From the documents now published by authority, we gather that, in reviewing the reports for 1876, the attention of the Lieutenant-Governor of Bengal was drawn to the heavy and increasing expenditure of these establishments, and particularly of the Sealdah and General Hospitals. The case of the former was "separately and carefully dealt with," we are not informed in what manner; and a committee of three medical officers was appointed to inquire into certain matters connected with the management of the latter. The report of this committee does not seem to have been satisfactory, for while it verified the facts, it offered no explanation of the increased cost, except that "it possibly might be caused by the out-door dispensary having been opened long before it was officially admitted to have been started." Dissatisfied with this result, and finding reason, from a careful examination of the medical reports, to entertain "grave doubts as to the character of the supervision, and check upon expenditure exercised throughout the medical institutions of Calcutta," the Lieutenant-Governor appointed a new Committee, consisting of the principal medical officers of the institutions under examination, three other medical officers of recognised standing and ability, the Accountant-General of Bengal, the Under-Secretary to Government, and, as president, a distinguished judicial officer, possessing statistical talent of a very high order. Their instructions were "to institute the most full and searching inquiry into the administration of each hospital and dispensary in Calcutta and the suburbs during the past ten years, and to draw up thereafter a general scheme for the management of those institutions on a uniform system." The Committee, after a careful and patient inquiry, submitted their report, upon which the Lieutenant-Governor founded orders regarding the future management of the Calcutta hospitals. In the document in which these orders were issued, he stated that while the primary object in instituting the inquiry was "to put an end to the confusion and waste which appeared to have crept into the administration of some hospitals, and to introduce an economical and uniform system of management," it was the desire of Government "not that less than they require should reach the sick, but that the public money should not, under the pretext of their needs, be wasted by the acts of dishonest or careless and inefficient subordinates. Fixed and uniform principles are required for the protection at once of the suffering poor and the public funds." The outcome of the inquiries conducted by this Committee proved, in the opinion of the Lieutenant-Governor, that while the professional duties were conducted with a praiseworthy devotion, and all that skill and science could dictate was done to alleviate suffering and cure disease, "there was a want of effective administrative supervision, to prevent waste and profusion, which added enormously to the Government expenditure, without in many cases benefiting the patients."

In publishing the results of this inquiry, and the new regulations founded thereon, the Lieutenant-Governor carefully avoided mentioning the name of any officer whom he considered in any way responsible for the unsatisfactory condition of matters, but he ordered copies of the report to be sent to three officers whom, we may consider, he deemed most inculpated, to "afford them an opportunity of offering any explanation" they might consider necessary. These were Dr. EWART, late Surgeon-Superintendent of the General Hospital; Dr. CHEVERS, late Principal of the Medical College (both of them now on the retired list); and Dr. D. B. SMITH, who acted for Dr. CHEVERS during some of the years covered by the investigation, and who is now Principal of the Medical College. Dr. SMITH'S explanation was incorporated in the official document now published, and the letters of the other two officers have been annexed to it in full. Dr. SMITH appears to have admitted (we have already stated that his letter has not been published) that the expenditure had been lavish, but to have justified it on the ground that it was considerably under the estimated sum. This, however, as the Lieutenant-Governor justly observes, may only afford proof of the wasteful scale on which the estimates were prepared and passed. Dr. SMITH also admitted "that there was laxity in the system under which the medicines were administered, and that the dietary system of the hospital was so cumbrous and faulty that he

had himself brought its imperfections prominently to the notice of his successor."

The letters of Dr. EWART and Dr. CHEVERS go so much into detail, and are so long, that it would be impossible to enter fully into the statements contained in them. It may suffice to say, as the result of a careful study of them, that Dr. EWART seems to base his defence of the increased and heavy expenditure on the improvements introduced into the establishment during his tenure of office, all of them sanctioned by superior authority, on the advanced price of European drugs, the development of the out-patient department, the purchase of new and costly instruments, the introduction of the antiseptic system of Professor LISTER, "a most costly mode of treating wounds," the free employment of disinfectants, the necessity for a liberal and benevolent system of feeding and comforting the sick, and the impossibility of doing so at the rates now laid down by the authorities. Dr. EWART states his view of the duty devolving on the head of a hospital to be "the greatest possible economy of health and life, or the utmost attainable alleviation, mitigation, or cure of disease. This principle should always be posted in the foreground, and override mere money considerations. Viewed from a medical, as distinguished from a pecuniary point of view, true economy in the management of the affairs of a hospital consists not so much in the saving of money, as in the conservation and saving of life." Now, although this definition is perfectly correct as regards the duty of the medical officer in his professional capacity, it appears to omit a very important matter as regards the officer in charge of the administration of a hospital, in which function it is, as we conceive, that Dr. EWART'S conduct has been called in question. For while everything necessary for the treatment and comfort of patients should be provided, the administrative head of the hospital is bound in duty to see that the money is judiciously expended, that there is no waste, no pilfering, no undue ordering of extravagant articles which have no bearing on the judicious treatment of the case, or which may even be injurious, and granted merely to gratify a whim or from a dislike to refuse a request. Dr. EWART, though most zealous and careful in treating his cases, certainly seems to have failed in realising the full importance of those duties which devolved upon him in his administrative capacity, for he speaks somewhat too lightly of irregularities which from this point of view are serious. "The irregularities pointed out in Appendix C do not necessarily imply fraud, for the quantities said to have been written off have been found in store. Had they been missing such might have been suspected." The question obviously arises, How could they have been "written off" if they were there, unless through gross carelessness? And if thus written off, were they not liable to be removed without any chance of detection? We think the Lieutenant-Governor was warranted also in expressing his regret at the tone of Dr. EWART'S letter, especially as "he has not hesitated to impute motives to the Government and to the Members of the Committee, for which there is not the slightest justification."

Dr. CHEVERS justifies the expenditure during the period of his charge on the ground that he and his colleagues worked under a very liberal system, and never exceeded the grants authorised by Government; that the gradual rise of prices involved increased expenditure; that, being a school as well as a hospital, it was necessary in the interests of the students to make trial of all new instruments, modes of treatment, and medicines; and that the dietary of the patients was not extravagant, it being impossible to obtain the necessary provisions of good quality at a lower rate. Dr. CHEVERS has a fair cause of complaint against the authorities that, when, with a view to prevent pilfering of drugs and other hospital property, he applied to have a porter in a proper lodge posted at the street entrance of the College, his request was refused. This refusal, therefore, transfers from him to them the blame for any such pilfering having been carried on. The whole tone of Dr. CHEVERS' letter is better than that of Dr. EWART'S, and it is a fair defence of his reign at the hospital. On one point, we think, he has somewhat failed. He does not appear to have endeavoured in any way to control the expenditure, except in his own wards; and he justifies this on the ground of the deference due to the position and professional character of the physicians and surgeons. But surely a good deal may be done in this way by friendly intercourse and advice on the part of the responsible administrative head of the hospital, without giving offence; it requires courage, tact, and knowledge, but with these much good may be effected.

In addition to the letters by Drs. EWART and CHEVERS, there is appended one by the Officiating Surgeon-General of Bengal, stating, by desire of the Lieutenant-Governor, the results of the new orders regulating the hospitals. These appear to be satisfactory, for under the reduced scale the supply of provisions has been adequate and good. In the few cases in which complaint has been made, the Surgeon-General shows that the defects arose rather from a misapprehension on the part of the medical officer than from any injurious restriction imposed by the new rules. So far as the effect of the change can be estimated by the mortality in the hospital, it is favourable; but we do not consider the death-rate, especially for a limited period, to be by any means a satisfactory test. The Officiating Surgeon-General goes into some detail on the subject of the quality and prices of the hospital supplies, and of the difficulties which have attended the introduction of the new regulations. His letter gives us the impression that he is well acquainted with the subject on which he writes, holds sound administrative views, and is fully competent to carry out an efficient and well-regulated system of hospital management. In conducting such an establishment as the General Hospital at Calcutta, with its important attached medical school, it must be remembered that, in addition to the treatment of disease, instruction is being given to the native students, who will hereafter be called on to work in and often to manage hospitals over the whole extent of our Indian dominions. It is therefore of paramount importance that they should be taught the principles, not merely of the medical and surgical treatment of disease, but also of efficient and economical hospital administration.

We have thus endeavoured to give an impartial summary of the documents before us, because they involve the very important question of hospital administration in India. A careful study of them has satisfied us that there was an imperative necessity for an investigation into the existing method, and that a clear case was established for a complete reorganisation. This we think is very obvious from the

statement of the case in the minute of the Lieutenant-Governor, and is corroborated by the very arguments used by Drs. EWART and CHEVERS in their exculpatory letters. It raises the very important question how hospitals maintained at the expense of Government may be best conducted, with a view to the interests of the sick, the instruction of the native students, and a due regard to the economy of the public money without interfering with professional efficiency. It must be obvious to all who have had anything to do with large public institutions, that an able and efficient administrative head is imperatively necessary, with whom must rest the responsibility of the general conduct and finance. This may be obtained by the appointment either of a medical officer as the general administrator and director, or of a financial officer responsible only for the money expenditure and for the quality of the supplies. This latter system was tried in the British service, when everything except the medical duties was placed under an officer of the so-called Control Department; and with what results? General discontent on the part of the medical officers; a difficulty in obtaining promptly extra supplies, which were deemed imperatively necessary by medical officers; a very inefficient supervision of the expenditure as regarded diets, medical comforts, &c.; and, as events proved in more than one instance, no proper check upon pilfering and misappropriation of public property. This was so clearly shown that in 1873 the responsibility in hospitals was taken from the Control Department and placed upon the senior medical officer, who was at the same time invested with the requisite authority to enable him to administer efficiently. So far as we have been able to learn, this system has been found to work advantageously, and, carried out in connexion with the principle of selection for such appointments, rather than seniority, it ought to be in every way suited to the requirements of the case. The history of the Indian Medical Department proves that there is no lack of officers endowed with high powers of organisation and talent for administration, and now that selection is acknowledged as the rule for promotion to the administrative ranks, and the regulations for the conduct of hospitals have been established, there ought to be no difficulty in bringing that important branch of the public service into a state of very high efficiency. We are disposed to think that the investigation which has brought out all this points to the necessity for establishing a regulation by which the tenure of office in any one hospital should be limited to a period of, say, five years, a regulation which should be rigidly enforced. Such a regulation would tend materially to promote the object of the Government in introducing a system "under which intelligent personal supervision has had to take the place of mechanical extravagance."

IT is not very long ago that surgical interference with joints was looked upon as quite unjustifiable, and when we remember the results often obtained we cannot condemn the opinion. But with the great advances in the treatment of wounds, and the introduction of novel mechanical appliances, joints like the serous cavities have been brought into the region of practical operative surgery. Professor LISTER has demonstrated the propriety, under certain circumstances, of making free openings into articulations, and of securing the thorough escape of all inflammatory products within them; nor need the mobility of the part be endangered by the procedure. OGSTON and others have shown how articular processes can be sawn off with impunity, a perfectly movable joint being left. But we desire here to call attention to the far simpler, safer, and more widely applicable operation of aspiration of joints, which has now been very often performed with the best results, and without any serious consequences. The questions that arise in connexion with this operation are, What can be attained by it? What are its dangers, and how are they to be avoided? And what are the indications for its performance? Can a joint, for example the knee, be emptied by the aspirator? Undoubtedly it can. The fluid effused into a joint is, as a rule, free from the fibrinous coagula which so often plug the cannula when used for effusions in other parts, or remain behind and cause a resecretion of the inflammatory product. The fringes of synovial membrane, however, may plug the cannula, or the fluid may be partly encysted, as it were, by the mucous ligament stretching across the middle of the joint, and then the aspirator may only empty one-half of the articulation. On the other hand, we must note that there are some conditions which tend to make aspiration of a joint far more effectual than aspiration of the chest. As the fluid is withdrawn the surrounding soft structures are certain to fall in on the joint and support the capsule in the normal manner. A compressed lung often cannot expand again to its original size, and if the chest-walls are rigid it is obvious that no aspiration can draw out all the fluid, for then a vacuum would be left behind. In a joint there is never any such difficulty in extracting the last quantity of fluid, for the stretched muscles, fascia, and skin return at once or under pressure to their original condition. From the close interlocking of the bones of the elbow, there would be more difficulty in emptying that than other joints, but here the operation would be very rarely called for. What are the practical advantages of the treatment by aspiration? The first is the relief of pain, which is often very severe where a joint is much distended. This tension also leads to a persistence or exaggeration of the inflammation, and possibly to its extension from the synovial membrane to the ligaments and cartilages, and if prolonged causes a gradual yielding and relaxation of the ligaments, and subsequent weakness of the joint, while the maceration in inflammatory fluid may interfere with the nutrition of the articular cartilage. The time that can often be saved by this method is also a valuable consideration. The dangers to be feared are, on the other hand, trifling: all the joints that any surgeon would think of aspirating are easily punctured without risk to any artery or important structure; if the instrument is used with care there need be no fear of injuring the cartilage with the end of the needle or trocar, and as nothing approaching a vacuum is produced in the joint, there is no liability to suction of air into it when the cannula or needle is withdrawn. Indeed, if the instrument be clean, and employed with only ordinary care, there need be no hesitation in resorting to its use. Surgeons will no doubt differ somewhat in their judgment of the conditions calling for this treatment. But it appears to us to be desirable in cases of acute synovitis, with severe pain from distension of the joint, or where, from the increased general and local pyrexia, or greater swelling, there is reason to fear that the fluid is becoming purulent;

where pus is actually present; where the absorption of the fluid flags or ceases altogether; in chronic serous synovitis or hydrops articuli; in pyæmia and suppurative synovitis, rather with a view of lessening suffering than of assisting the cure. In hydrops articuli it is not enough simply to remove the fluid; the relaxed ligaments require support for some time, and the best method of giving it is to strap the joint carefully and firmly immediately after evacuating it. This is no new operation; it has frequently been done in England, and perhaps relatively more often in America, where Dr. H. O. MAREY of Cambridge, Mass., has reported a number of cases of his own and other American surgeons in a paper in the Transactions of the American Medical Association for 1879.

Annotations.

"Ne quid nimis."

REPRESENTATION OF THE UNIVERSITY OF LONDON.

IT must not be supposed that our remarks as to the expediency of selecting a *graduate* to succeed MR. LOWE in the representation of the London University in Parliament were aimed against the Vice-Chancellor, Sir John Lubbock. We wrote in view of the possibility that a medical graduate might be accepted by the majority of Convocation. Moreover, as a matter of principle, we think constituencies should be represented by persons who are members of the bodies for whom they will have to vote and speak. The case of the Vice-Chancellor of a University is, however, exceptional. If he is not a graduate, he is in a sense more than a graduate. His duties are executive as well as administrative, and he is already entrusted with the representation of the University in what is its special function—namely, the conferring of those degrees which constitute the grounds of membership. This is clearly not the case of an outsider representing the constituency. It is simply the extension of a function already performed. The Vice-Chancellor represents the University in its proper work as a corporation conferring degrees; nothing can be more natural than that he should be further commissioned to represent the University in Parliament. Again we say, it is foreign to our purpose to enforce the claims of any particular candidate, unless a medical graduate should directly occupy the field; but we are anxious not to be misunderstood, and therefore revert to the subject to define the limits we place in our own mind on the argument, strong as we shall always feel it to be, that a constituency must, *cæteris paribus*, be best and most fittingly represented by one of its own members.

POISONOUS DRUGS.

IT cannot be disguised that there are great practical difficulties in dealing with the perilous use and abuse of poisonous drugs. It is not easy to control the sale of these "medicines," and it is obviously impossible to restrain those who once have them in their possession from employing them in excess or improperly, either intentionally or by accident. The appeal must ultimately be found to lie at the tribunal of common sense. The public should understand that when a full dose of any drug is prescribed it cannot be exceeded without risk. It not uncommonly happens that even the average dose of a popular remedy is in excess of the special requirements, and may threaten the health or lives of individuals. There are always in any large number of persons some who are especially sensitive to the action of particular drugs, just as there are here and there a few who are peculiarly insensitive. The dose of most remedies sold for public use is fixed to meet the supposed requirements of the mean "constitution"—to use a hackneyed term—and it is at his individual peril any one takes it. If the common dose were fixed so low as to prevent the possibility of danger to any person, the drug would be generally considered useless, because to the majority it would be practically inert. This should be understood. There is, however, another point of even greater importance. A class of persons, to which any individual may, for aught he can tell, belong, are so constituted in respect to the nervous system that almost any potent drug acting in a particular way will prove dangerous. When a man takes medicine—of a potent sort—without medical advice as to his personal state and need, he does so at his peril. A single grain of mercury in a pill, which is expected to act as a safe aperient, the anticipation being, perhaps, based on experience of a similar medicine, may salivate; a very mild sedative may induce the sleep from which there is no awakening. It is not always carelessness in the use of drugs and "medicines" that kills, but ignorance—not ignorance of the remedy, or even of its customary effects, simply want of knowledge as to the way it *may* operate under special conditions. If the risks of unskilled physic-taking or giving were realised there would be less of this dangerous trifling in domestic life, fewer deaths "by misadventure," and, on the whole, we believe, the majority of the people would enjoy better health.

EPIDEMIC CYCLES.

DR. ARTHUR RANSOME of Manchester has been adding to his writings on epidemic diseases and allied subjects a very interesting and thoughtful paper on "Epidemic Cycles." Making use particularly of certain annual death-rates which have been kept in Sweden since 1774, he finds in them "internal evidence of accuracy in the characteristic peculiarities of the course of each disease," and holds that "they bear ample witness to the fact of the regular succession of epidemics in distinct cyclical periods." He has thrown the data from this source and from other sources into a series of diagrams, and from them he concludes that *whooping-cough* has a cycle of about four years; *small-pox*, before the introduction of vaccination, had a cycle of from four to five years; the cycle of *measles* is about seven years; while *scarlet fever* has an extended cycle of from fifteen to twenty years, when it recurs as a great visitation, fluctuations forming "less undulations," so to speak, occurring in the intervals. Dr. Ransome briefly considers the conditions which may probably determine the recurrence of these cycles, not omitting the question of possible relationship with the sun-spot period. This question he illustrates by a most interesting diagram of the sun-spot periods since 1775, but he is unable to trace any relationship between these periods and the epidemic cycles. He comes to the conclusion that the facts relating to the different cycles are susceptible of a simpler explanation than is commonly conceived. "A certain density of the population at susceptible ages," he says, "is necessary before a disease can spread with the vigour of an epidemic. Probably all the facts would be accounted for, if we suppose that these disorders can only become epidemic when the proximity between susceptible persons becomes sufficiently close for the infection to pass freely from one to the another. Exanthematous diseases rarely attack the same individual twice in his life-time. When, therefore, an epidemic has, by either a fatal or non-fatal attack, cleared away nearly all the susceptible persons in a population, mostly infants and children up to a certain age, then it must necessarily wait a certain number of years before the requisite nearness of susceptible individuals has been again secured. There must in the intervals be a gra-

dual restocking of the nation with material fit for the epidemic to feed upon, and it can only spread when the requisite proximity is attained, when meshes of the network of communication are sufficiently close for it to include all susceptible persons in one grand haul." Dr. Ransome thinks that this hypothesis is supported by the peculiarities of the different epidemics he depicts. The paper is highly suggestive and interesting, the diagrams particularly well executed, and we shall trust to see the subject sooner or later elaborated by Dr. Ransome in greater detail.

THE SELECT COMMITTEE ON MEDICAL BILLS.

IT will be interesting to see the course taken by the Government in reference to the question of Medical Reform. There is just enough time left this session to complete the evidence, and to enable the Government to bring in a Bill next year that will remove the anomalies and faults of our present Medical Council and examining bodies. It will be remembered that when the announcement of dissolution came the Committee was hoping to be favoured with the evidence of Sir William Jenner. This evidence, and probably that of six or eight other witnesses, of whom the majority, it is to be supposed, would be unconnected with the licensing bodies, would complete the case on which legislation must be based. We have reason to believe that an early question will be put to the Vice-President of the Council, with the view of eliciting the intentions of the new Administration.

CHIAN TURPENTINE IN CANCER.

IN another column we print a letter from Professor John Clay, giving precise directions for the recognition of what he believes to be the true Chian turpentine. Without offering any opinion on the point at issue, we must strenuously insist on its crucial importance. As to the discrimination between genuine and spurious cases of the disease, the opinion of competent observers can and must, of course, be trusted; but in regard to the nature of the drug which it is desired to try there is great difficulty. Professor Clay says he has tested other varieties of turpentine, and has not found them to produce the effects he attributes to the particular drug he recommends. It will, therefore, clearly be impossible to attach the slightest weight to experiments, however well made, in which what Professor Clay calls "Chian Turpentine" is not used. It is not so much, perhaps, a question as to the precise characteristics of Chian turpentine as the identity of the drug for which the extraordinary effects produced by the new treatment of cancer are claimed.

THE RESUSCITATION AT RAAB.

AN account of the resuscitation of the executed criminal at Raab, in Hungary, which has been published by the Paris *Temps*, supplies some additional details of medical interest regarding the unfortunate occurrence. The method of execution adopted in Hungary is peculiar. There is no drop; the gallows is but little raised. The noose is of fine rope, and is placed around the neck of the criminal, and is then so tightened by a sudden "tour de main" of the executioner as to cause strangulation, and even dislocation of the cervical vertebræ. Great skill is, of course, necessary to produce this effect. Afterwards, the body of the criminal is raised to the gallows by the assistants of the executioner. Formerly the dislocation of the vertebræ was produced in a much more certain, although more brutal, manner. After the criminal had been suspended, the executioner jumped upon his shoulders with a force which never failed to produce the desired effect. In the present method a powerful contraction of the muscles of the neck may interfere with the effect of the sudden tightening of the noose. In the case of Takacs the same effect was produced by another cause. The execution took place in the ordinary way. The medical officer in attendance stated, immediately, that the man was dead, and in two minutes the body was cut down and carried to the post-mortem room of the Raab Hospital. Professor Bierbaurer proposed to make some observations upon it by electrical stimulation, but when he was about to commence tremors were observed, and a choking noise was heard in the throat. The professor's assistants were seized with panic, and a message was sent off to the Procureur-General to know what should be done with the body of a criminal, the muscles of which contracted without the aid of electricity! Pending the reply, however, the professor set about completing the resuscitation. It was found that the vertebral column was intact, and that there was a large scrofulous sore on the neck, which had apparently been so irritated by the rope as to cause extreme pain and death-like syncope. It seemed also that a number of enlarged glands had prevented the compression of the trachea, and strangulation. The first distinct movement which was observed was the elevation of the hand to the back of the neck. As consciousness returned the patient passed into an intense attack of delirium tremens, of which, as is known, he died next day. A fellow criminal, concerned in the same crime, had already died in prison, before the trial.

THE READING PROVIDENT DISPENSARY.

THIS institution is to be regarded as a successful and interesting experiment, judging from the Report for 1879; so, at least, the committee think. Medical service is paid for in it, except in respect of 963 patients who have been nominated by governors for gratuitous attendance and medicine. 1826 new provident members were admitted during the year. This is less than in the preceding year, and the diminution is attributed to the establishment of an Association of various Friendly Societies for kindred purposes, such as some medical and social reformers in the metropolis are recommending. The five surgeons receive, respectively, £297 0*s.* 1*d.*, £235 11*s.* 11*d.*, £317 3*s.*, £188 18*s.* 9*d.*, £54 3*s.*, £21 1*s.* 10*d.*, in all £1113 18*s.* 7*d.* This may seem a good sum, but it will appear very modest when viewed in connexion with the work it represents. The surgeons receiving, respectively, the above fees, paid, respectively, the following visits, those in parentheses being visits at the homes of patients:—16,240 (6833), 14,135 (8191), 19,275 (9499), 12,162 (5457), 2950 (1860), 928 (491). In the year 1879, 12,725 provident members were treated, and 747 cases were treated on governors' nominations. The Report is a very interesting one, by reason of the care and system with which it is compiled, and we may revert to its teachings and suggestions. It would be more valuable still if accompanied by a copy of the rules of the institution.

VIVISECTION IN GERMANY.

WE learn from the *Deutsche Medicinal Zeitung* that the Petition Commission of the Reichstag was occupied on April 28th with numerous petitions which had been presented against the performance of experiments on living animals. Some of them objected, on principle, to all vivisection, others would permit it to continue, in a limited form, in the interest of science. The Commission decided to postpone the consideration of the petitions to the next meeting, and to invite Virchow to be present, and to ask for the assistance of a Government Commissioner. At the next meeting Virchow accordingly explained to the Commission the importance of the practice to science, and showed how largely scientific progress during the last three centuries, and its present height, had been due to observations made on living animals. The occurrence of excesses was not contested,

but it was urged that their control should be in the hands of the local authorities and not effected by Imperial enactment. The Commission could not decide, however, that the petitions were unsuited for discussion in the full Parliament, but held it desirable that the subject should be submitted to the Reichstag in the form of the following resolution:—"That, in the interest of scientific investigation, vivisection seems to be indispensable in the physiological schools; that the change in the laws of the kingdom which the petitioners wish is undesirable; that the petitioners should memorialise the local authorities on the subject of the alleged abuses."

"WOOLSORTER'S DISEASE."

IT will be remembered that in December last we reported the case of woolsorter's disease which occurred in Bradford, in which the examination of the blood showed the disease to be anthrax. This case was under the care of Dr. Bell, of Bradford. We understand that during the past three weeks five more cases have occurred in the same neighbourhood, four of which have been fatal. All the cases were in men employed in sorting what is known as "Van mohair." A malignant pustule formed in three cases. Dr. Bell, under whose care one of the cases which was not attended with pustules fell, found bacillus anthracis in the blood after death, and certified the case as one of splenic fever. An inquest has been opened on this case, but adjourned for further evidence. We understand that portions of the spleen and blood have been sent to Dr. Greenfield for examination. We hope to publish a full report of the outbreak in our next issue.

FASHION AND DEFORMITY.

PROFESSOR FLOWER, LL.D., F.R.S., delivered a very interesting lecture on this subject at the Royal Institution on Friday last, having passed in review the various methods adopted by different nations and at different ages of deforming or altering the natural shape of some portion of the body in obedience to the dictates of fashion. The different practices of shaving, cutting and dressing the hair and beard, and tattooing the skin were alluded to, but more attention was given to the disfigurement of the nose, lips, and ears by cutting holes and inserting various substances through them, almost identical customs being described among people living at most remote regions of the world. The fantastic methods of filing and chipping the front teeth into different patterns practised by the Malays and some African negroes were then noticed. An account of the mode of altering the form of the head, which prevailed once extensively in Europe, and was almost universally adopted in Peru and on the western coast of North America, was followed by a description of the effects produced upon the feet of civilised races by the unnatural form of the boots commonly worn, the evils of pointed toes and high heels being exemplified by diagrams and specimens. The construction of the waist was next noticed, the figure of the Venus of Milo, and one taken from the last Paris fashion book, being compared and contrasted. All these customs were shown to arise from a similar propensity, which manifested itself in the human mind under all conditions of civilisation, to tamper with a form which good sense, as well as good taste, ought to teach was the most perfect that could be designed. The origin of these fashions is mostly lost in obscurity, all attempts to solve them being little more than guesses. Some of them had become associated with superstitious observances, and some have been vaguely thought to be hygienic; most have some relation to conventional standards of personal appearance; but whatever their origin the desire to conform to common usage and not to appear singular is the prevailing motive which leads to their continuance. The vitiation of taste produced by these conventional standards which shows itself in the Malay in the preference of black teeth to those of the most pearly whiteness, in the Bongo negro and American Botocudas in liking lips and ears which are enormously and to our eyes hideously enlarged by huge wooden plugs inserted through them, in the Chinook Indian by contempt of any head which is not flattened like a pancake or elongated like a sugarloaf, is displayed among ourselves by the admiration of unnaturally pointed toes and contracted waists.

THE governors of the Manchester Royal Infirmary, as well as the poorer classes of sick people of the town, are to be congratulated on the completion of the building at the rear of the hospital, intended for the accommodation of out-patients. Besides offering great advantages from a sanitary point of view, the new arrangement will set free space hitherto taken up for dispensing purposes. This space may be utilised by the provision of some thirty additional beds, to which in-patients from another part of the infirmary will, it is stated, be transferred. There are several features in the construction of the new building which appear well-advised and calculated to facilitate the work connected with the treatment of hospital out-patients.

CARDIFF would appear to be passing into the background in regard to its hospital accommodation and the means for removing the sick and wounded. Dr. Alfred Sheen has been raising a question in the local journals of the erection of a new infirmary, and showing how much the existing building fails to supply the reasonable hospital requirements of the population; and Dr. Maurice G. Evans has been directing the attention of the local authority to the want of proper means—even of a common stretcher, it so seems—for the removal of cases of accident to the infirmary or elsewhere. There should be no difficulty on the part of this important town and seaport in providing at least and at once a fitting stretcher, as Dr. Evans urges.

AT a recent annual meeting of the friends of the Dreadnought Hospital, the President, His Royal Highness the Duke of Edinburgh, drew attention to the fact that on the previous Christmas-day the representatives of between forty and fifty nationalities sat down to dinner at the same table. This statement excited the interest of an artist of promise, Mr. John C. Dollman, who has represented the scene in a picture, entitled "Friends in Adversity," No. 471, of the present Royal Academy Exhibition. The figures in this picture are all portraits from life, and the motley assemblage is likely to excite the attention of all who take an interest in anthropology.

WE are requested to announce that it is proposed by some of the past students of Guy's Hospital to hold a meeting at Willis's Rooms, on Friday next, which will take place half an hour before the commencement of the Hospital Biennial Dinner, in order that the old Guy's men there assembled may have an opportunity of expressing their sympathy with the members of the medical and surgical staff of the Hospital under present circumstances, and their continued confidence in the staff's conduct of the affairs of the medical school of Guy's Hospital. All former students of the school are invited to attend.

PROFESSOR BUTLIN will commence his course of three lectures at the Royal College of Surgeons on Wednesday, the 2nd proximo, the subject being the "Relations of Sarcoma to Carcinoma." Mr. Lowne will commence his course on the "Development of Sensory Organs" on Monday, the 7th proximo; and the annual course of lectures will be brought to a close by Professor Hutchinson, who will deliver six lectures, four of which will be on "Some of the Surgical Bearings of Gout and Rheumatism," and two lectures on the "Etiology of True Leprosy."

AT a late meeting of the Hertfordshire Natural History Society and Field Club, Dr. A. T. Brett read a suggestive paper "On Fluke in Sheep, with remarks on a new parasite discovered in the muscular fibres of sheep who have the rot." His attention was first directed to this new parasite by Dr. Mann, the Medical Officer of Health for Pontypool, and Dr. Brett proposes to name it *Distoma musculum*.

TERRIBLE accounts are received of the famine in Kurdistan, Armenia, and Persia. One letter states—"Thousands are dying in several places. We have reports of the dying feeding on the dead, of men killing all their children, of hundreds of children abandoned and perishing in the streets." And these are but the beginning of sorrows. Pestilence will come to glean the fields reaped by famine.

AMONG the many charities in the city of Madras (says the *Madras Athenæum*), that owe their existence to the benevolence of Mr. P. S. R. Moodelliar, not the least charitable is the pretty set of buildings which constitute the lying-in hospital. This institution was opened on the 6th ult. by the Duke of Buckingham and Chandos with great *éclat*.

THE physicians appointed to ascertain the mental condition of Veli Mahomed, who assassinated Colonel Commeroff about three months ago, have reported that the prisoner is not, and never has been, insane.

DR. THOMAS BARLOW, late Assistant Physician to the London Hospital, has been appointed Assistant Physician and Assistant Teacher of Clinical Medicine in University College Hospital.

THE Court of Appeal at Westminster has delivered judgment in the case of Howell *v.* West, refusing the application of the plaintiff for a new trial. The verdict for the Head Master of Epsom College and Mr. Jones therefore stands.

THE Society of Physicians of the Middle Rhine, consisting, it is stated, of 1600 members, intend to hold a meeting at Homburg on the 19th instant.

Local Government Department
IN ITS
PUBLIC-HEALTH AND POOR-LAW MEDICAL RELATIONS.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Middlesex and Hertfordshire Combined Sanitary Districts (population 97,608).—Dr. C. E. Saunders' report for 1879 gives evidence of sanitary progress in his district, even if the progress be slow. Very great and lasting improvements in the water-supply of the district have been made, he states, but still there are several localities where a much better supply is urgently called for. He has some observations on the very perfunctory manner in which the provisions of the Contagious Disease (Animals) Act, as affects dairies have been carried out, nothing, in fact, having been done with reference to dairy inspection. He illustrates the necessity for such inspection by a case under his own observation. He expresses regret that no further provision has been made in his district for the treatment of infectious disease occurring among non-paupers, and cites an example of a servant girl sent home while suffering from scarlet fever, and communicating the disease to her own family and others, in one instance the disease ending fatally. Had there been means available for isolation this extension could have been prevented. Of the several authorities entering into the combination for which Dr. Saunders is medical officer, one only has complied with the Local Government Board's request to furnish him with copies of the Poor-law Medical Officers' relief list, and so it happens that the Poor-law side of the Local Government Board stultifies the Public Health side. The mortality of Dr. Saunders' district in 1879 was at the rate of 16·3 per 1000 living.

Barnsley Urban (estimated population 29,405).—Dr. M. T. Sadler reports a death-rate of 21·79 per 1000 inhabitants for 1879. Steady progress would appear to be made in the drainage arrangements, and also to some extent in the arrangements for the disposal of solid filth in the town. Dr. Sadler has some excellent observations on the dangers from sewer-air.

Kendal (estimated population 14,200; area in acres 2622).—Dr. Page reports for this borough, in 1879, the lowest mortality, with one exception (1877), since the present system of registration was established, in 1837—nearly forty-three years ago. The death-rate for 1879 was 17·8 per 1000 of the estimated population. Of the diminished death-rate Dr. Page observes: "That this lowering of the death-rate in recent years is due to the operation of causes of no accidental kind, is, I think, pretty conclusively shown by the uniformity of its progress and by its concurrence with those costly measures which have been undertaken, having in view the direct object of promoting the health of the town. The death-rate is, in fact, the index by which we may hope to estimate rightly the influence of the sanitary measures upon the public health, just as it is from an analysis of the death-rate itself we must seek to ascertain the precise nature and the true direction of needful sanitary works." During 1879 Kendal was completely free from prevalent infections or zymotic sickness.

West Kent Sanitary District (estimated population 153,967; area 311,556 acres).—Dr. Baylis reports favourably upon the general sanitary condition of this district during 1879. The mortality was at the rate of 16·3 per 1000 inhabitants. He again gives interesting illustrations of the importation of cases of small-pox, principally from London, into his district, and the happy results, in the prevention of spreading, of the isolation of these cases in hospital or at their own homes when under charge of an experienced nurse careful in avoiding needless communication with the infected house, and in the use of disinfection. He notes especially the diminution to nearly half the usual amount of fatal infantile diarrhœa in his district during the low summer temperature of 1879. An interesting summary account of sewerage works completed since 1878, or now in progress in the district, shows how much permanent sanitary improvement is being effected.

Stroud Urban and Rural.—Dr. Partridge reports favourably of the *Urban Sanitary District* (population 7665), for the year 1879. The mortality (at the rate of 21·3 per 1000 population) was not unusually heavy, nor was it increased by any epidemic disease. Of the *Rural Sanitary District* (population 29,065), Dr. Partridge reports a gradual improvement, and greater regard given to public-health regulations. In both districts much attention is being devoted in detail on the local influences likely to affect injuriously the health of the people, and on their removal.

Brighton (population, parliamentary borough, 125,583; municipal borough 105,608).—Dr. Taaffe's report for 1879 shows a highly favourable state of health in this renowned health-resort. Gauged by the general mortality, this was at the rate of 17·7 per 1000 inhabitants in the parliamentary borough, and of 18·9 per 1000 inhabitants in the municipal borough. It is obvious that the sanitary authority is giving steady attention to the health condition of the town and to the maintenance and improvement thereof. We are glad to learn that the corporation propose to erect a hospital for infectious diseases, or, as they prefer to name it, a *sanatorium*. In view of the frequent introductions of infectious disease into the town, it is certainly desirable that the sanitary authority should have its own provision for isolation, and not be dependent on the County Hospital and the workhouse. Dr. Taaffe, who has for some time urged the need of a hospital for isolating cases of infectious disease, recommends also the adoption of the Artisans' Dwellings' Act, the erection of a public slaughter-house, of a public mortuary, and of châlets de nécessité after the Paris model. All these recommendations will no doubt be acted upon in due time, and all go to show that Brighton has not yet reached the pitch of perfection she may yet attain.

Hexham Rural (population 27,696).—Dr. Maclagan's report for this district during 1878 is, happily, uneventful, but not the less interesting as showing sanitary progress, even if

slow. The introduction in some cases of the earth-closets, in others of the Goux system, give promise of a better future for the privy accommodation of the district.

Epping Rural.—Mr. Trevor Forster is in the good position of having little to say as to his district during 1879. The death-rate was equal to 15·0 per 1000 of the population, and there was no special outbreak of disease. The most noteworthy feature in the sanitary record, he states, was the almost total absence of autumnal diarrhœa.

Longton Urban (estimated population 23,000). — Dr. Weaver congratulates his authority on the "highly satisfactory" facts of "a decreasing death-rate and increasing life-rate" in the borough. The mortality was at the rate of 20·6 per 1000 of the inhabitants.

Lytham Urban.—The mortality of this health-resort appears to have been at the rate of 17·8 per 1000 inhabitants during 1879; but we infer from Dr. Pountney's report that the sanitary authority is not so active and so judicious in its action as it might be. He refers to the flooding of cellars in heavy rainstorms by the "backing up" of water from the drains; to the *draining* (!) and covering over of old ashpits (midden-privies we take it), and of erecting others so provided; of the abandonment of the project for a "sanatorium" (that is, we presume, of an infectious-disease hospital); and of the want of a public disinfecting stove, so that in cases of infectious disease the clothing and bedding of the patient could be disinfected, and the risk of spread of contagion minimised. Lytham is evidently not keeping pace with other health-resorts in her sanitary progress, and she must be prepared to suffer from her neglect.

Dr. Angus Mackintosh has been reappointed medical officer of health to the Chesterfield Combined District. The reappointment gives an opportunity of offering some illustrative observations on what may be accomplished in a combined rural and urban sanitary district, even under the present imperfect condition of the law, by sanitary authorities wishful to do their duty when aided by an energetic and thoughtful medical officer. The Chesterfield combination has a population (in round numbers) of 50,000, and an area of 68,550 acres. Dr. Mackintosh was first appointed in 1873. Since that year the authorities, acting on his representations of the sanitary requirements of their districts, have borrowed from the Loan Commissioners and expended for sanitary purposes, £200,000. Proper sewerage and drainage of a previously unsewered and undrained district has been carried out, much sewage diverted from streams, and water from the mains of the Chesterfield Water Company to a great extent substituted for water from shallow, unprotected surface-wells. In furtherance of this distribution of purer water three large reservoirs have been constructed in various parts of the district, and a fourth is under construction which will give to the whole district the inestimable advantage of a pure water-supply. A decrease of the death-rate from 28 to 29 per 1000 population to 18 to 19, and a marked diminution in the prevalence of typhoid fever and diarrhœa following upon the great sanitary improvements effected in the district, may reasonably be attributed to them. We congratulate Dr. Mackintosh on the success of his labours—a success which must give heart to others who are labouring to overcome difficulties similar to those he has had to contend with.

Mr. Francis Godrich has sent us a plan of Fulham parish showing the parts from which cases of small-pox were removed to the Fulham Small-pox Hospital during the years 1877, 1878, 1879, a letter accompanying the map we give elsewhere in the journal. The Fulham Hospital was opened for the reception of small-pox patients in March, 1877. Since the opening numerous cases of small-pox have been received into it from Fulham parish, and by far the greater number of these cases, according to Mr. Godrich's statements and map, have been removed from the streets nearest to the hospital. It by no means follows, as Mr. Godrich appears to think, that the infection must, therefore, have been diffused from the hospital, but he certainly makes out a case for "impartial investigation." The sanitary authority for the parish, we believe, does not accept Mr. Godrich's inferences as to the influence exercised by the hospital on the dissemination of small-pox in its vicinity, neither does the medical officer of health, Dr. Dudfield. This question is one which ought not to be left in the unsatisfactory state that it is at present. It does not concern the Fulham Small-pox Hospital alone, but the Homerton and Stockwell Small-pox Hospitals also, and it is discreditable to the Local Government Board that an official inquiry has not been hitherto directed into its merits. The reference to this issue in Dr. Bridges' recent report on small-pox in the hospitals of the Metropolitan Asylums Board is, as we already had occasion to remark, far from sufficient to meet the requirements of the case.

Dr. Ballard, in an official report recently issued by the Local Government Board, on an outbreak of enteric fever at Tolcarne-road, New Quay, Cornwall, gives another excellent example of the sort of experiments which builders undesignedly prepare for us to illustrate the circumstances under which typhoid fever is very commonly developed in this country. Tolcarne-road is a part of the urban sanitary district of New Quay. There in recent years have been erected a hotel and a group of higher-class houses, deriving their water-supply from wells sunk on the spot, and having a system of drainage constructed under the supervision of the sanitary authority. The drains are emptied into a cesspit near to the sea-shore, cesspit and drains being alike unventilated and otherwise imperfectly ordered. The drainage arrangements, in fact, reproduced in deplorable detail those errors of construction and of plan which, in view of the prevention of enteric fever, it is most necessary to avoid. In February, 1879, there is good reason to believe that the dejections of a patient suffering from enteric fever found their way into the drains and cesspit, and following upon this occurred the outbreak of fever in the houses which formed the subject of Dr. Ballard's inquiry, and which was determined partly by the diffusion of air from the specifically polluted cesspit and drain air into the houses, and partly by the use of water from a well which had been contaminated by leakage from the drains.

The Local Board of Chippenham at a recent meeting, with reference to the question of establishing an infectious-disease hospital for the use of the urban and rural sanitary authorities, resolved "that as at present there were no infectious diseases prevalent in the district, they would not entertain any proposition for erecting an infectious hospital so long as the necessity for erecting one did not exist." In other words, they decided not to lock the door until the steed had been stolen. At the same meeting with reference to the efficiency of the fire-brigade, they did not propose to defer consideration of the question until a fire occurred, but gave directions to the surveyor to obtain at once a sufficient staff of men, and of drilling them so as to be "prepared in case of emergency." It did not seem to occur to the Local Board that there was as much reason to be prepared beforehand against the emergency of a deadly infection as against a fire.

In a recent report presented to the Bristol Sanitary Authority by Mr. Davies, the medical officer of health, an outbreak is recorded of eight cases of typhoid, occurring in five different houses, which he attributes to infected milk. The families occupying these houses derived milk from the same source, and on an inspection of the farm from which it came it was discovered that the water for dairy and domestic use was taken from a mill-stream which received the sewage from water-closets and the overflow of a cesspool within a short distance above the farm buildings, and was further polluted by decomposing animal matter, among which were portions of a calf which had died of quarter-evil (an anthracoid affection).

The protracted inquiry relative to the project for making a sewage farm near Molesey (as part of a scheme for the combined drainage of numerous places on the Lower Thames), held by Mr. Thornhill Harrison, C.E., for the Local Government Board, with Captain Hildyard, R.E., as assessor, came to an end on Thursday, the 7th instant. This inquiry has occupied not less than forty-five days, and during its progress eighty witnesses have been examined—forty-one for and thirty-nine against the scheme. The evidence submitted was exceptionally complicated and contradictory, and the report of the two commissioners will be looked for with much interest; and by the residents in the localities concerned in the inquiry, with no little anxiety.

Marpel, in Cheshire, is about to enter into an arrangement with the Stockport Water Company for the supply of water to the district of the urban sanitary authority. Under

the advice of Mr. Alfred Moore, of Manchester, engineer, terms have been prepared by which the Water Company undertakes to deliver filtered water to the district at the rate of 8*d.* per 1000 gallons, the urban sanitary authority providing the necessary means of distribution. The cost for storage reservoir, pumping engine, and pipes is estimated at £7360.

A public inquiry was opened on the 30th ult. at Portobello, by the Board of Supervision, as to a complaint of nuisance from the ventilators of the sewers there. The sewers of the town are tide-locked except at low water, and their ventilation is effected by simple shafts running up from the crown of the sewers to the surface of the roadway. Mr. McNeill, of the Board of Supervision, is conducting the inquiry, which was not completed at the time of our latest news.

The report of Lieutenant-Colonel Bolton (the Water-Examiner) for March states that the water at all the intakes of the Companies drawing water from the Thames was in better condition during the month than in February, and that the filtration was efficient. All the companies appear to be actively moving in the matter and giving a constant water-supply.

The application of Scott's Sewage Company for permission to make a trial of their process for treating sewage at the Crossness pumping station has been granted by the Metropolitan Board of Works. The experiment is to be carried out subject to certain conditions, under the supervision of the engineer of the Board, and at the sole cost of the company.

The Medical Officer of Health for Brierley Hill reports that deaths among young children have largely increased in that district, and condemns the system so prevalent in the Black Country of effecting assurances upon the lives of the young as an encouragement to neglect by the parents.

We learn that several serious cases of enteric fever have occurred in Slough, and occasioned some alarm there. The Local Board, however, appears to be on the alert, and to be taking active measures and precautions.

An outbreak of small-pox has taken place in Enniskillen, and within the last few days seven additional cases have occurred, two being among the militia recruits at present up for drill.

Local journals write of Beaumaris as if the office of registrar of deaths there must be rapidly becoming, if it have not already become, a sinecure.

VITAL STATISTICS.

HEALTH OF LARGE ENGLISH TOWNS.

Mortality continues low in our large towns. In twenty of the largest English towns, estimated to contain in the middle of this year seven and a half millions of persons, or nearly one-third of the entire population of England and Wales, 5571 births and 3053 deaths were registered last week. The births exceeded by 286, while the deaths were 222 below, the average weekly numbers during 1879. The deaths showed an increase of but 38 upon the low numbers returned in the previous week, and were equal to an annual rate of 21·2 per 1000, against 21·3 and 21·0 in the two preceding weeks. During the past five weeks of the current quarter the death-rate in these towns has averaged only 21·7 per 1000, against 25·2 in the corresponding periods both of 1878 and 1879. The lowest death-rates in the twenty towns last week were 15·7 in Hull, 16·3 in Oldham, 16·7 in Portsmouth, 17·7 in Leicester, and 18·0 in Brighton. The rates in the other towns ranged upwards to 25·0 in Liverpool, 25·2 in Sheffield, 28·0 in Manchester, 30·3 in Salford, and 38·3 in Plymouth. The excessive rate in Plymouth continues to be due to the exceptionally fatal epidemic of measles.

The deaths referred to the seven principal zymotic diseases in the twenty towns, which had been 457 and 415 in the two preceding weeks, rose again to 443 last week; they included 130 from whooping-cough, 121 from scarlet fever, and 81 from measles. The annual death-rate from these seven diseases averaged 3·1 per 1000 in the twenty towns, and ranged from 0·3, both in Hull and in Newcastle-upon-Tyne, to 5·3 and 18·1 in Salford and Plymouth. Whooping-cough showed fatal prevalence in Liverpool, Manchester, and Salford. The deaths from scarlet fever exceeded those returned in any week since the end of January, and were proportionally most numerous in Salford, Brighton, and Sheffield. Measles was most fatal in Plymouth, Sunderland, and Nottingham; 23 more fatal cases were recorded in Plymouth (against numbers increasing from 11 to 20 in the six preceding weeks), making no less than 274 that have been recorded within the borough since the middle of November last. No less than 15 of the 19 deaths referred to diphtheria occurred in London. Five more deaths were referred to fever (mainly enteric) in Sheffield, where the disease still shows excessive fatality. Small-pox caused 10 more deaths in London, but not one in any of the nineteen provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had already increased from 167 to 196 in the five previous weeks, had declined to 186 on Saturday last; 43 new cases were admitted to the hospitals during last week, against 44, 48, and 49 in the three preceding weeks. The Highgate Small-pox Hospital contained 24 patients on Saturday last, an increase of 3 upon the number at the end of the previous week.

Influenced probably by the cold north-east winds, lung diseases were somewhat more fatal last week. The deaths referred to diseases of the respiratory organs in London, which had steadily declined from 395 to 260 in the five previous weeks, rose again to 280 last week, but were 28 below the corrected weekly average; 161 resulted from bronchitis, and 80 from pneumonia. The annual death-rate from diseases of this class did not exceed 4·0 per 1000 in London last week; the rate from the same diseases was equal to 6·2 per 1000 in Liverpool and in Salford.

VARYING FATALITY OF LUNG DISEASES.

Much has yet to be learned as to the true import and practical application of mortality statistics, although few now venture to dispute their general value as indications of sanitary condition. Not many mistakes will be made in assuming the existence of insanitary conditions wherever high death-rates, from all causes and from zymotic diseases, co-exist with excessive proportions of infant mortality. There are many cases, however, in which high death-rates from all causes do not appear to be even mainly due to excess of either zymotic or infantile mortality; and analysis of those high death-rates, as to the causes of the deaths and the ages of the decedents, should yield useful results. We have frequently regretted that the Registrar-General's weekly statistics of the twenty large English towns do not include information bearing upon the varying fatality of diseases of the respiratory organs in those towns. We are glad therefore to note, in the Registrar-General's Quarterly Return just issued, that this subject receives some notice. The excessive mortality in London during last quarter, compared with that recorded in most of the other large English towns, appears to have been in great measure due to the unusual fatality of lung diseases. The deaths referred to diseases of the respiratory organs in London, excluding phthisis, during the first thirteen weeks of this year exceeded the corrected average number in the ten preceding corresponding periods by no less than 28 per cent., and was equal to an annual rate of 8·5 per 1000. When we are told that the rate from the same diseases, in the same period of thirteen weeks, did not exceed 2·9 in Wolverhampton, 3·5 in Sunderland, and 4·4 in Bradford, the inquiry why lung diseases showed such excessive fatality in London naturally suggests itself. The nearest approach to the London death-rate during last quarter from these diseases, among those of the large towns for which this information is available, was 7·5 in Liverpool and 7·8 in Plymouth; Manchester was the only town in which the rate (9·0 per 1000) exceeded that which was recorded in London. These variations are sufficiently wide to encourage the hope that investigation would add to our knowledge of the true significance of mortality statistics; they are too wide to be explained by differences of local temperature, and some other explanation must be sought. The Registrar-General suggests the inquiry "how much, if any, of the excess of mortality from these diseases is due to sanitary condition in its broader signification." There can be no question about the direct effect of overcrowding, and the indifferent housing of a population, upon its death-rate from lung diseases. The contrast between the mortality from these diseases during last quarter in the neighbouring urban sanitary districts of Manchester and Salford is noteworthy; the rates were 9·0 and 5·8 respectively,

a difference exactly corresponding with the difference between the death-rates from all causes, which were 27·6 and 24·4 per 1000. Now, as regards zymotic and infant mortality, Salford suffered last quarter more severely than Manchester, whereas the contrary was the case with lung diseases. Such facts as these are worth the serious attention of medical officers of health.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

The report of the Manchester and Salford Association for the year 1879 shows that it continues and is still further developing its useful operations. The report for the past year consists of three separate sections, relating respectively to the Association proper, the Inspection Department, and the Ladies' Branch. The Association proper concerned itself chiefly with the questions of the pollution of air, the necessity for the extension of the functions of the City Analyst to other matters than food and drugs, and the improvement of artisans' dwellings, by promoting the application of the Artisans' Dwellings Act, or special legislation to the same end in Manchester. The report of the Inspection Department very instructively illustrates the advantages to be gained by the establishment of a ready means for householders obtaining skilled advice, at a minimum cost, as to structural sanitary defects in their dwellings. Mr. Corbett, one of the engineers of the department, states that he had inspected and reported on twenty-nine premises, including dwelling-houses, business premises, schools, churches, a large hospital, &c., and that he found that "only four of these places were of fairly healthy arrangement and construction; none had safely constructed sewers; only five had any attempt at ventilation of the dwelling-rooms; none having thorough and effective appliances. The sanitary conditions being so generally defective, it naturally followed that I heard of serious illness in twelve dwellings, including six cases of typhoid, two having terminated fatally; six cases of diphtheria, and several minor ailments." Mr. Corbett then adds the following comment, which reads as a bitter satire upon our architectural arrangements:—"I find that, as a rule, the larger and more elaborate a dwelling is the greater is its danger from defective or misplaced sewers and water-pipes." The report of the Ladies' Branch states that considerable advantages have been derived in pursuing their work by their amalgamation with the Association. The sanitary mission work in which they are engaged appears to be productive of much good. The work of the Association is still unfortunately cramped by its very limited income—an income curiously inconsistent with the magnitude and wealth of the northern metropolis and the beneficent labours of the Association.

We regret to see, from the report of the Institution for Infectious Diseases, Netherfield House, Liverpool, for the past year, that this hospital—the only one which Liverpool possesses for the reception of cases of infectious diseases among persons who are not paupers—is sorely straitened for funds. The hospital is supported by voluntary contributions and by the payments of the patients; but although the number of cases admitted in 1879 was only eighty-three—the smallest number admitted in any year since the opening of the hospital in 1858,—the receipts fell short of the expenditure by £520, and the accounts show a total deficiency of £767 15*s.* 6*d.* To meet, in part, the difficulty in regard to funds the Health Committee of the Corporation made a grant to the hospital of £256, and has promised for the present year a sum equal to the subscriptions which may be received. The value of this hospital is obviously very imperfectly appreciated by the population of Liverpool. The greater number of patients received during the year were domestic servants (15) and children (31), but it is not stated from what class of families the children came. The remaining patients were from middle-class families, and included also two gentlemen and three emigrants. Ought not the Corporation, in the interest of the great seaport, and seeing that it does not possess a sanitary hospital, to acquire, if possible, this "Institution"?

ADDENBROOKE'S HOSPITAL.—The collection in aid of the Funds of this Institution made after the University sermon on Sunday the 2nd inst., preached by Canon Farrar, amounted to £70 16*s.* 10*d.*

THE SERVICES.

HEALTH OF SOLDIERS AT ALDERSHOT.

A CORRESPONDENT of the *Times*, in noticing the recent review at Aldershot, called attention to the small proportion of the troops in camp that paraded before the Queen, and gave some statistics of sickness among the soldiers, which, notwithstanding certain inaccuracies of statement, is noteworthy. The strength of the division at Aldershot was stated to be 10,644 of all ranks, and the sick were numbered at 560. The *Times* reviewer calculated the proportion of the sick to be equal to a little over 8 per cent.; the true proportion, however, scarcely exceeded 5 per cent. A special reference was, moreover, made to the 7th Dragoon Guards, as the most sickly regiment, and having 18 per cent. in hospital. The colonel of this regiment has since demurred to this statement, and reports that the number on the sick list in his regiment on the review day was 42 (not 55 as reported by the *Times'* reviewer, on the authority of a "field state," signed by the Assistant-Adjutant General of the Division), out of 620, the strength of the regiment. Apart from this discrepancy of figures it is evident that the percentage of the sickness depends upon the method of calculation. The *Times'* reviewer evidently calculated his percentages upon the numbers present on parade, whereas it clearly should be calculated upon the total number of the regiment in camp. Thus, accepting the figures from the "field state," nearly 9 per cent. of the regiment of Dragoon Guards was unable through sickness to appear on parade, instead of the 18 per cent. spoken of by the *Times'* reviewer. With this reduction, however, the percentage of sick in this regiment is now exceptionally high, and suggests (together with an average of 5 per cent. throughout the whole division in Aldershot) an inquiry as to the causes of so large a proportion of sickness among the troops now stationed at Aldershot.

NAVAL MEDICAL DEPARTMENT.

The appointment of Admiral Hoskins to the superintendence of this among other departments, is so far auspicious from his having had before him very recently the points of inferiority to the Army Medical Department, which the active navy officers signalise as oppressive. These it is desirable to have removed at once, in order to induce young doctors to enter the service; although we admit not very much is to be anticipated from leveling up to a bare equality with a service that demands less restraint, and provides a better future. We would desire to see the new Order in Council exceed in all essential features what we have lately shown to be the very lowest requisitions admissible. When the evidence before the committee is in print, it will be seen how far it goes beyond our suggestions. Admiral Hoskins, as president of the committee, will have proper grounds for judging how far reforms may go, but these should not be wanting in liberality. We have less to fear in this direction when an entire department is undergoing a revolution, than when the pruning hook simply is being applied to exuberant branches, or to lop away the higher ones. In the first case our rulers walk tenderly over the many, and in the latter with less of reserve over the few involved in the changes. Therefore we may look for more of safe liberality, or even of generosity, than the department has been of late years accustomed to receive.

It should, however, be borne in mind that no perfect or permanent reform was ever yet effected which had not for its foundations a true examination of the defects that have rendered it necessary. If rumours floating about be truthful, there is no ground for suspicion that all which might have been done to insure this has not been done; in fact, it is said that the evidence received bears much of the form of selection, while such as might have proved inconvenient has been rejected.

The present Board of Admiralty, not being so strongly conservative of its mistakes as that which has passed by, will do well not to forget that it has to deal with a large profession very prone to judge of the future by the past, and that its juniors are greatly biased by those who have borne the brunt of the day. It will be well to have regard to outside opinion of the past as well as of the future if the aim be to attract the best style of aspirants, by removing all

the conditions that have tended to raise the actual deadlock of the schools.

We shall hope for a speedy issue of the Naval Medical Order in Council.

Correspondence.

"Audi alteram partem."

CHIAN TURPENTINE IN CANCER.

To the Editor of THE LANCET.

SIR,—I beg to thank you for placing the columns of THE LANCET at my disposal for the purpose of giving information of my tests for the purity of Chian turpentine, and I may be permitted to strongly support your dictum, that this is a point "which should be settled at the very threshold of the research."

As regards the sources of the drug which has been employed throughout my investigations in the treatment of cancer of the female generative organs, I may state that we had a small supply in the Hospital Dispensary which I supplemented from a chemist in Birmingham. The two specimens were identical as regards their appearance, taste, and smell. We thus had a sufficient supply to carry us through the cases reported in THE LANCET for March 27th, 1880, as well as some for the treatment of private cases. Knowing the difficulty of procuring the Chian turpentine genuine, I relied in the first instance upon the characters given in Watts' Chemistry, Vol. v., page 920, as tests of its purity. The drug I used was many years old, and agreed with the following description given by Watts: "yellowish-green, has an odour of fennel and elemi, and an aromatic taste like that of mastic. It dissolves completely in ether, and partially in alcohol, leaving a glutinous residue." Subsequently I procured Flückiger's and Hanburys' Pharmacographia, from which I give their excellent description of the drug: "Chian turpentine as found in commerce and believed to be genuine, is a soft solid, becoming brittle by exposure to the air; viewed in mass it appears opaque, and of a dull brown hue. If pressed while warm between two slips of glass it is seen to be transparent, of a yellowish-brown, and much contaminated by various impurities in a state of fine division. It has an agreeable, mild terebinthinous odour and very little taste. The whitish powder with which old Chian turpentine becomes covered shows no trace of crystalline structure when examined under the microscope."

The specimens I used corresponded in every particular with these two descriptions, but it may be useful to describe more in detail some of the properties above mentioned.

The pure drug is of such a solid nature that a portion taken between the fingers may be rolled into the form of a pill without adhering to the fingers; thus it is very different from the large number of spurious specimens which have been supplied to the public, and which for the most part have been of a syrupy consistence. The odour of the genuine drug is peculiar. If a portion be softened between the fingers the fragrant odour can be readily perceived, and it is not by any means similar to that of turpentine oil, whilst the spurious kinds smell strongly of the latter substance. The taste of the pure article is characteristic in not being unpleasant. Indeed, it is almost tasteless; I have kept a piece in my mouth for two hours and scarcely knew that it was there. The taste of most of the spurious kinds is very bitter, and so unpleasant that I now rarely adopt the above-mentioned mode of testing the drug. The brittle yet elastic nature of the pure drug is very striking. If a piece is warmed and rolled out, and is allowed to cool, and is then dropped on the floor, it generally breaks into a number of fragments. If a mass is placed in a shallow vessel it usually flattens and spreads over the vessel, the surface being smooth. When the pure drug is placed between two pieces of warmed glass its appearance corresponds exactly with that given in the Pharmacographia. It is best to take a piece of glass, warm it very slightly with a piece of lighted paper, clean it, and then place the drug to be examined upon it; then cover the drug with another piece of glass, and allow both to cool; then by holding the double glass up to the light the characters are readily distinguished. If the drug is spurious, consisting perhaps of strained crude turpentine or Venice turpentine, and so placed between warm glass, it will present the appearance almost of water. If Chian turpentine is adulterated with Canada balsam, on a gentle heat being applied to the glass on which it is applied the Chian turpentine remains in the centre and the balsam flows over the glass, the reason being that the former requires a little stronger heat to liquefy it. If black resin is mixed with Venice turpentine, to make the specimen resemble the impurities of the real article, the compound in of a syrupy consistence only, and on heating the mass sufficiently between two glasses the resin is melted, so that the apparent impurities which it presented disappear, while these remain permanent in the genuine drug. Canada balsam when heated becomes transparent, and perhaps more so if the heating is repeated, and the smell is of a well-marked sickly odour. If the spurious kind consists largely of resin and a piece is put on a spatula and a lighted taper applied to it, the characteristic resinous odour is at once obtained.

The taste, odour, and appearance, then, are the chief characteristics of the drug. If it has a bitter taste it is not pure; if it has not much taste, as a mixture of resin and Canada balsam, on burning the mass the peculiar odour will reveal its impurity. If the mass does not dissolve in alcohol, but leaves a glutinous residue, then, all other things being equal, it is pure. If it is of a greyish-white, or black colour even, mixed with impurities, and of a syrupy consistence, it will have a strong smell of turpentine, and is not pure. I enclose you some specimens of the pure and of the impure drug for your inspection.

May I be allowed to say a few words in reply to Mr. Green's letter in your last impression. My original paper was merely a report of some trials I had been making with Chian turpentine in the treatment of certain forms of cancer. A general definition of cancer was given at the commencement of the paper, and as three of the patients suffered from extremely advanced cancer, I deemed it unnecessary, having given this definition, to minutely describe what was self-evident. As regards the inconsistencies of which Mr. Green speaks, I think they arise from his want of due consideration of my remarks as applying to recorded facts only, without any attempt at explaining them. Nowhere in the paper did I allege the cases to be cured, for I distinctly stated that there had not been sufficient time to decide whether the disease would or would not recur. From Mr. Green's point of view it is not likely to recur, as he infers that the cases were only "alleged" cases of cancer. With equal propriety I might ask Mr. Green for a definition of granular disease and hyperplasia of the cervix. This is unnecessary, as I hope I am able to distinguish the two diseases. As Mr. Green seems to impugn my veracity, I may state that I only published cases occurring in hospital practice, and which were open to the observation of competent medical men. I may add that the fourth reported case was seen by Dr. Heslop, the senior physician to the Queen's Hospital, who has had a large gynæcological experience, and who is an able pathologist, and he unhesitatingly declared the case to be one of cancer of the uterus.

I am, Sir, yours obediently,

Birmingham, May 12th, 1880. JOHN CLAY.

BENZOL IN WHOOPING-COUGH.

To the Editor of THE LANCET.

SIR,—The use of benzol vapour in whooping-cough was recommended some years ago, but I am not aware of any recorded instance of its use as an internal remedy. For ten or twelve years past I have used it in this way with very excellent, and often striking, results; and I therefore feel justified in bringing it under the notice of the profession, as a remedy of very great utility in a certain stage of the malady.

Recent statistics prove that whooping-cough is still one of the most fatal of children's diseases, and the extensive array of so-called cures bears witness to the difficulty of cure, as well as to the general inefficacy of the remedies themselves. But for the lengthened experience I have had in the use of benzol I should be unwilling to add to this long list; but in dealing with a zymotic disease like whooping-cough, it would seem that benzol, by its antiseptic properties, was likely to act beneficially; and, as a matter of fact, I have hitherto found no remedy so useful.

In the early stages of the complaint benzol is not useful, and I do not give it until the acute stage is past and the lungs are free from congestion. I incline, however, to the belief that it might do good in the initial stage, before any congestive mischief is set up; but of this I have no experience.

For the first fortnight I give the usual remedies, such as ipecacuanha, hyoscyamus, and solution of acetate of ammonia, directing especial care as to temperature and diet. At the end of this period the following mixture is given every four hours:—Benzol, two to ten minims; tincture of hyoscyamus; compound tincture of chloroform; acacia mucilage; water in sufficient quantity. The benzol should be quite pure, in which state it has a peculiar "aromatic or otherial odour," and is not at all unpleasant to the taste. When I first used benzol, it was in the impure form, which, though very unpleasant to the smell, was, when properly combined, not unpalatable, and I incline to think the effects were even better than those obtained by the pure preparation.

Of the action of benzol not much is known apparently, but its composition ($C_6 H_6$) would lead to the conclusion that it is harmless to man, even in considerable doses. It is true Chevallier reports a case of poisoning by it, but it is very likely that the poisonous action was due to some impurity. I am not aware of any other instance of the kind, and I have not observed the least unpleasant symptom from its use.

Paraffine, which is not very dissimilar, has been taken in large quantities without injury. Dr. Alexander informs me of a case he saw recently in which a man swallowed half-a-pint, by mistake, not only without injurious effects, but with the result of curing severe rheumatism of long standing. I incline to think that the dose of benzol might be increased with advantage, especially if used in the purest form.

In a case which came under my care, not long since, a boy of ten had suffered severely from whooping-cough for three weeks, each of the paroxysms bringing on an epileptic attack; after taking the benzol mixture for a week he was quite cured. In another instance, a young lady after three weeks' treatment was apparently quite cured. She had remained free from cough for a fortnight, but on her way to Switzerland the cough returned with extreme violence, and she was so extremely ill on arriving at Interlachen as to cause great alarm. Fortunately she was able to get the prescription for the benzol mixture made up there, and after a dose or two the cough ceased entirely.

I could adduce many other equally striking instances were I not fully mindful of the capricious nature of the malady and of the full meaning of *post hoc*. I would merely therefore say that it is well worthy of a fair trial under the conditions which I have laid down.

Your obedient servant,

King's Lynn, May 6th, 1880. JOHN LOWE, M.D.

CRUELTY TO WOMEN.

To the Editor of THE LANCET.

SIR,—I herewith forward you my pamphlet on "Counter Seats for Shopwomen," in which I called attention to the subject some eighteen months since.

I am happy to state that many leading firms have already recognised the evil complained of, not only in this metropolis, but in numerous provincial towns. There is, however, still much to be done. The Countess of Aberdeen has been working at the question for the last twelve months. Your annotation in this week's LANCET will serve to call professional attention again to the subject, and will, I trust, prove eminently useful in furthering the cause of the oppressed.

I beg to remain, yours faithfully,

Wimpole-street, W. ARTHUR W. EDIS, M.D., F.R.C.S.

ROYAL COLLEGE OF SURGEONS.

AT an ordinary meeting of the Council, held on Thursday last, the Collegial Triennial Prize was presented to Mr. G. A. Woods.

A letter was read from Mr. Simon, resigning his seat as a member of the Council, and arrangements were made for the annual election of members of the Council on Thursday, July 1st. Mr. Holmes' motion to abolish the payment of members of Council for attendance at meetings was rejected by eleven against nine.

The report of the committee appointed (see THE LANCET, Oct. 18th, and Nov. 15th, 1879) to consider the necessary arrangements to be made for the institution of examinations in Chemistry, Materia Medica, Pharmacy, and Midwifery, to be passed by all candidates for the Membership and Fellowship, was presented, and the following recommendations were made and adopted, *subject to confirmation at the next meeting*:—"That, in view of the uncertainty which prevails as to the compulsory establishment of a Conjoint Scheme in each division of the United Kingdom, and of the desirability of some combination being effected amongst the English Medical Corporations, for the purposes of a complete Examination in Medicine, Surgery, and Midwifery, the Council should give notice to the several medical authorities concerned in the Conjoint Scheme of the intention of this College to withdraw from that Scheme, so that the independent action of the College may be thereby secured."

On the motion of Mr. Marshall, the Council resolved to adopt the principle of instituting an examination in Elementary Anatomy and Physiology to be passed by candidates for the membership at, or after, the expiration of their first year of study, and it was referred to the "Committee on Examinations in Anatomy and Physiology," to prepare and submit to the Council for approval the necessary regulations for defining and conducting such examinations.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at Meetings of the Board of Examiners during the week:—

Arthur W. Wheatley, W. C. G. Collins, Charles E. F. Biggs, Charles F. Rumboll, Alfred J. Weakley, David John, Nicholas P. Marsh, Arthur S. Nance, Alfred P. Trinder, Rupert W. Newton, Roger D. de la H. Williams, and Herbert C. Simmons, St. Bartholomew's Hospital; Arthur J. Dalton, William E. Andland, Walter T. Harris, John G. Milnes, Daniel T. Edmunds, George H. Kinck, James H. Targett, Edgar R. S. Lipscomb, John H. Cox, Reginald J. Ryle, Frank N. Shillingford, Benjamin M. Moorhouse, William J. C. Tomalin, Henry A. B. Davies, George R. Green, and Michael A. Muirhead, Guy's Hospital; Frank L. Phillips, Sidney C. Lawrence, Birmingham; Herbert W. Knowles, Liverpool; Henry T. Rudge, Bristol; Harry I. Smith, Herbert W. White, and John Humphreys, Glasgow University; Benjamin Poulton, Melbourne, Australia; Robert P. Jefferson, Leeds School of Medicine; William A. Foxwell, Cambridge and St. Thomas's Hospital; Michael H. Feeney, Cork; Bassett C. E. F. Gunn, University College; Hugh Robinson and John R. Rygate, London Hospital; William F. Majoribanks, St. Mary's Hospital; Robert W. Shelley, Charing-cross Hospital; A. Barber, St. Thomas's Hospital.

The course of lectures for the present year will be resumed on Wednesday, the 2nd of June next, by Professor Henry Trentham Butlin, F.R.C.S., of St. Bartholomew's Hospital, who will deliver three lectures on "The Relations of Sarcoma to Carcinoma."

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on May 6th:—

Edward Cocks Johnston, Easy-row, Birmingham.
William Clay Jones, Llyswen, Breconshire.
Arman Jules M'Connel Routh, Montague-square.
Thomas Dixon Savill, St. Thomas's Hospital.

The following gentleman on the same day passed the Primary Professional Examination:—

John Lloyd Thomas, Queen's College, Birmingham.

UNIVERSITY OF GLASGOW.—Preliminary Examinations in General Education were held on April 1st, 2nd, and 3rd, when 332 candidates appeared. For the Professional Examinations 190 candidates entered, and the following passed:—

First Professional Examination (New Regulations) in CHEMISTRY, BOTANY, and ZOOLOGY.—Thos. G. Alexander, Robt. Berth, Andrew Lees Bell, Benjamin Blaine, John G. Burns, William Campbell, Joseph Carroll, Fergus Carswell, Norman M'Leod Clerk, Robert Davidson, Thomas Spence Dunn, Alex. Galbraith, James Gardner, John M'H. Geil, James F. Gemmell, William Gibb, Thos. J. Grime, Francis Johnstone, Isaac C. Hodgson, Alex. Jarvie Howel, Robert Horn, Robert R. Hunter, Creighton Hutchinson, Matthew Killach, William Little, James D. M'Donald, Neil C. M'Donald, Thomas F. MacDonald, John Francis M'Gregor, H. Malcolm M'Intosh, John M'Intyre, Peter MacLean, James M'Nish, Matthew Martin, James Maxwell, Henry Mason, William C. Muir, William Patullo, William G. Pretsell, Richard A. D. Robb, William J. G. Robinson, Andrew Semple, Dugald Sinclair, John Sinclair, Alexander J. F. Skottowe,

William Anderson Sega, Robt. Stewart, William C. Taylor, Edward T. Turnbull, William Waddell, Hy. Pelham Webb, John C. Wilson, David Gardner, James Jardine.

First Professional Examination (Old Regulations) in CHEMISTRY, BOTANY, and ELEMENTARY ANATOMY.—Robert M. J. Bennie, Geo. V. Fourquemin, John Logan, J. Ferguson M'Gregor, John Mathie, Wm. H. Hay Robertson, Patrick A. Smith, C. B. Hunter.

Second Professional Examination (Old Regulations) in ZOOLOGY, PHYSIOLOGY, and ADVANCED ANATOMY.—John Bond, John T. Brown, James Donald, John Goff, Oliphant Hamilton, C. Buchanan Hunter, John H. Low, Robert Miller, Donald Morrison, Alexander M'Indoe, David R. Oswald, James Rae, William Russell, Donald Simpson, John Stevenson, Thomas Stewart, Robt. G. Taylor, Henry Fraser.

Second Professional Examination (New Regulations) in DESCRIPTIVE ANATOMY and PHYSIOLOGY.—Roland Blaney, John Brown, John Buchanan, John Carruthers, David Durran, H. E. N. Dobie, David Gardner, James W. Grange, George Hadden, John M. Hunt, Charles Jamieson, John Johnstone, John Hoey, George G. Kenny, David Laurie, Dugald M'Phee, John Morris, Wm. Morrison (M.A.), Alexander F. Reid, James C. Robertson, Edward Williams, William M. Williams, Frank Wilson, George Wolstenholme, J. M. Robertson.

The following gentlemen received the degree of M.D.:—

Archibald Brown, M.B.,	Scotland.	Robert Ferguson, M.B.,	Scotland.
Chas. D. Hunter, M.B.,	,,	Wm. Jas. Fleming, M.B.,	,,
John Hutchinson, M.B.,	Ireland.	David Sime, M.B.,	,,
Thomas Reid, M.B.,	Scotland.	James Thomson, M.B.,	Ireland.
Robert Sinclair, M.B.,	,,	John D. M'Donald, M.B.,	Scotland.
Arthur R. Waddell, M.B.,	,,	Thomas Oliver, M.B.,	,,
James Campbell, M.B.,	,,		

The following received the degrees of M.B. and C.M.:—

‡Thomas B. Adam,	Scotland.	Angus M'Phee,	Scotland.
William Allan,	,,	William M'Vie,	,,
John A. Barton,	,,	Arthur Meehan,	,,
Thomas B. Birchall,	England.	Robert D. W. Mecredy,	Ireland.
Peter Buchanan,	Scotland.	Dugald Mitchell,	Scotland.
John M. Cameron,	,,	William B. Moir,	,,
†Archibald K. Chalmers,	,,	†Islay B. M. A. Muirhead,	,,
Thomas Dixon Cook,	England.	Daniel Mungall,	,,
Alex. W. Crawford,	Scotland.	Sambhu Chandra Nandi,	India.
John Crawford,	,,	Charles Napier,	Scotland.
Peter H. Cunningham,	,,	†William Nicol,	,,
Alexander Davidson,	,,	*William K. Peden,	,,
William S. Donald,	,,	Charles Harry Pinck,	England.
John Duff,	,,	‡Charles Pinkerton,	Scotland.
Neil Fullarton,	,,	Alexander Barr Pollock,	,,
Robert Hamilton,	,,	William Pollock,	,,
Mark K. Hargreaves,	England.	Robert Porter,	Ireland.
Edwin Haworth,	,,	John M. Smith,	Scotland.
Edwin White Jones,	,,	*Ralph D. Stevenson,	Australia.
Robert Lees,	Scotland.	George Storer,	Scotland.
David Longwill,	,,	William Taylor,	,,
Robert Lyon,	,,	George F. Wickens,	England.
H. S. Lyons,	Bleeay.	William R. Willis,	Scotland.
‡William M'Allister,	Scotland.	James S. Wilson,	,,
Angus M'Auley,	,,	John Neil Wilson,	,,
James B. M'Kenzie,	,,	John M. Yair,	,,
William J. M'Kenzie,	India.	Henry Yarrow,	,,

The following received the degree of M.B. alone:—

‡John Glaister, Scotland. | Wm. D. M'Keith, Scotland.
John Sinclair, Scotland.

The following received the degree of C.M. alone:—

Walter M. B. Allsworth, England.

* Honours. † High Commendation. ‡ Commendation.

The degree of LL.D. has been conferred during the past year on the following members of the medical profession:—

John Hutton Balfour, M.D. &c., Emeritus Professor of Botany in the University of Edinburgh, and formerly Professor of Botany in the University of Glasgow.

Joseph Lister, M.B. &c., Professor of Clinical Surgery in King's College, and formerly Professor of Surgery in the University of Glasgow.

John E. Cowan, M.D., Emeritus Professor of Materia Medica in the University of Glasgow.

Michael Foster, M.D., Prælector on Physiology in Trinity College, Cambridge.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At examinations held on April 23rd and following days the undermentioned obtained the diploma in Surgery of the College:—

James Law Atkinson, John Edward Snow Barnes, John Graham Blyth, James John Francis Cassidy, Daniel Bennett Clancy, Thos. Hobbs Crampton, Patrick Donnelly, Henry L. Ferguson, Richard Henry Ffrench, Arthur Daniel O'Connell Finnegan, Thos. Edward Geoghegan, William Frederick Gilbert, Edward Gloster, Henry Sinker Wilson Hill, Wm. Percy Jones, Michael Colville Kennedy, Henry Greenwood Mahon, Anthony Hickman Morgan, Patrick O'Grady, William Thos. O'Keefe, Richard Henry Stewart Sawyer, Michael Andrew Wade, Michael Walsh, John Warnock, Richard Benson Warren, Edward Tonge Yates.

SURGEON THOMAS D. GIMLETTE has been appointed to the *Minotaur*.

EARL FORTESCUE has accepted the office of President of the Sanitary Congress, to be held in Exeter in the autumn.

THE Guardians of Rotherhithe have received permission to borrow and expend £2085 for additions and alterations at their infirmary.

MADAME ALBANI has consented to sing, in aid of the funds of the Victoria Hospital for Sick Children, at the concert to be held at Chelsea House on June 2nd, at 4 P.M.

THE salary of Mr. C. Barrett, medical officer of the Weston district of the Bath Union, has been increased by £10 per annum.

DR. FOSTER MACGEAGH was presented on Saturday last with a handsome clock and candelabra, together with a purse of gold and address by his patients and friends on resigning his appointment as Resident Physician to the Tunbridge Wells Sanatorium.

MR. W. CHANDLER ROBERTS, F.R.S., Chemist of the Mint, has been appointed Lecturer on Metallurgy at the Royal School of Mines, rendered vacant by the resignation of Dr. Percy, F.R.S. Mr. Roberts will, says *Nature*, continue to hold his appointment at the Mint.

J. W. EASTWOOD, M.D., M.R.C.P. Lond., of Dinsdale Park, has been placed on the Commission of the Peace for the borough of Darlington. At the first meeting of the Guardians forming the Rural Sanitary Authority of the Darlington Union, Dr. Eastwood was unanimously elected chairman for the seventh time.

A BANQUET in aid of the funds of Charing-cross Hospital was held on Tuesday last, at Willis's Rooms. Lord Denman, in the absence of the Duke of Edinburgh, presided. It was stated in the course of the evening that the cost of the proposed removal of the mortuary buildings and providing new premises for the medical school would be about £10,000. Subscriptions to the amount of £2500 were announced.

METROPOLITAN WATER SUPPLY.—The Council of the Society of Arts have had under consideration the question of holding a public conference on this subject, and appointed a committee to consider and report thereon. This committee having met several times, and given full attention to the expediency of the Society holding a conference on the supply of water in the metropolis at the present time, and having confidence that the supply of the best water to the metropolis will be fully considered by Her Majesty's Government at an early period, reported that they were of opinion that no conference should now be held, and the council have accordingly resolved not to summon the conference as proposed.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual general meeting was held on May 7th, in the rooms of the Royal Medical and Chirurgical Society, Berners-street. The chair was taken by the President, Sir George Burrows, Bart. The report showed that the number of members was only 386—the same as in the previous year. Ten new members had been elected; five had died, and five resigned. During the past year fifty-nine widows and fourteen orphans had received £2968 10*s*. The expenses had been £222 17*s*. 10*d*.; the grants showing an increase of £72 10*s*., the expenses an increase of £41. Three widows in receipt of grants had died, and one had become ineligible through marriage; five fresh widows had been selected. Two children had ceased to be chargeable on the funds, but five fresh cases had been adopted. A present of £5 had been made at Christmas to each widow, £2 to each orphan, and £4 to each of three orphans from the Copeland Fund. A legacy of £500 Consols had been transferred to the trustees of the Society by the executors of Miss Harriet Hurst, and the funded property had been further increased by the purchase of £814 0*s*. 9*d*. Metropolitan Consolidated Stock. The total expenditure of the Society for 1879 had been £3191 7*s*. 10*d*., and the receipts available for payment of grants and expenses were £3242 5*s*. 4*d*., leaving a balance of £50 17*s*. 6*d*. in favour of the Society. The following gentlemen were elected directors in place of the six senior who retired—viz., Thomas Dickinson, Esq.; Charles A. Aikin, Esq.; Dr. Church; Dr. Day; A. E. Durham, Esq.; and W. A. Brailey, Esq.; and Dr. Rugg was elected to fill the vacancy caused by the retirement of W. H. Sheehy, Esq. A vote of thanks to the editors of the medical journals for their kind services was carried unanimously. The meeting was then made special, to consider the proposal of Mr. Steet to extend the area of the operations of the Society from its present limits to a radius of twenty miles from Charing-cross. The alteration was approved by the meeting.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London.

Hay Fever, its Causes, Treatment, and Effective Prevention. By Dr. C. H. Blackley. Second Edition. pp. 281.
Manual for the Physiological Laboratory. By V. Harris, M.D., and D'Arcy Power, B.A. Oxon. pp. 124.
The Hair, its Growth, Care, Diseases, and Treatment. By Dr. C. H. Leonard. Illustrated. pp. 310.
On Insufficiency of the Aortic Valves. By Dr. J. Cockle. pp. 64.
Nature's Hygiene. By C. T. Kingzett, F.C.S. pp. 192.

CHURCHILL, J. & A., London.

Pharmacopœia of the British Hospital for Diseases of the Skin. By B. Squire, M.B. Second Edition. Small 8vo, pp. 92.

CURWEN & SONS.

The Mechanism of the Human Voice. By Emil Behnke. pp. 92. 8vo, 3s.

KEGAN PAUL & Co., London.

Health. By W. H. Corfield, M.D.

KEYS, E. (Government Press).

The Madras Manual of Hygiene. Compiled under the orders of the Government by Surgeon-Major H. King, A.M., M.B., Ch.B. Second Edition. pp. 434.

LEWIS, H. K., London.

General Paralysis of the Insane. By Dr. W. J. Mickle. pp. 246.
A Guide to the Examination of the Urine. By Dr. J. W. Legg. Fifth Edition. pp. 110.
Tables of the Physiological Action of Drugs. By E. A. Morshead, M.R.C.S., L.R.C.P. pp. 15.

LONGMANS, GREEN, & Co., London.

New Greek Delectus. By H. M. Wilkins, M.A. pp. 180.

MACMILLAN & Co., London.

Water-supply. By J. H. B. Browne. 8vo, pp. 104.

SAMPSON LOW, MARSTON & Co., London.

The Watering-places and Mineral Springs of Germany, Austria, and Switzerland. By Dr. E. Gutmann. pp. 326.

SWAN, SONNENSCHEIN, & ALLEN, London.

An Elementary Text-book of Botany. Translated from the German of Dr. K. Pranti. pp. 332, with woodcuts.

WARD, LOCK, & Co., London.

Long Life Series: Illustrated.
Long Life, and how to reach it. 1s.
Eyesight, and how to care for it. 1s.
The Mouth and the Teeth. 1s.
The Throat and the Voice. 1s.

Estudio sobre el Quebracho Blanco. Por F. R. Burgos.—The Victoria Review.—The Sanitary Journal. (Macdougall, Glasgow.)—Archives of Dermatology for April. (Lippincott, Philadelphia.)—Researches on Hearing through the Medium of the Cranial Bones. By Dr. Thomas.—Reports of Tenant Farmers' Delegates on the Dominion of Canada as a Field for Settlement. Second Edition.—Canada: a Handbook of Information for Intending Emigrants.—A Tour through Canada. By T. Moore.—The Prairie Lands of Canada. By T. Spence.—Dominion of Canada: a Handybook for Emigrants.—Province of Manitoba, Nova Scotia. By H. Crosskill.—Evidence on the Closing of Public-houses on Sundays, given by E. Whitwell, Esq. (E. Stock.)—On the Removal of Foreign Bodies from the Eye. By Dr. C. S. Bull.—A New Study of Cerebral Cortical Localisation. By Dr. R. W. Amidon. (Putnam's Sons.)

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ALLARD, W., F.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Tewkesbury Urban Sanitary District. £50 per annum.

ALLEN, Mr. A. A., has been reappointed Analyst for the Borough of Sheffield.

ATKINS, T. G., M.D., M.Ch., L.M., has been appointed Assistant Physician to the Ophthalmic and Aural Hospital, Cork.

BROMLEY, F., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Presteigne District of the Knighton Union.

BURTON, W. H., M.B., L.R.C.P.L., has been appointed House-Surgeon to the Deaconesses' Institution and Training Hospital, Tottenham, London.

CLARK, Annie E., L.K.Q.C.P.I., M.D., has been appointed Resident Medical Officer to the Children's Hospital, Birmingham, vice W. Rhodes, resigned.

DAVIES, A. M., L.S.A.L., has been appointed House-Physician to the Westminster Hospital, vice S. G. Hamilton, M.R.C.S.

DAVIES, Mr. M., has been appointed House-Physician at the London Hospital.

DINGLE, W. A., L.R.C.P.I., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for No. 8 District of St. Luke's Parish, in the Holborn Union, vice E. G. Pottle, deceased.

FAIRLEY, T., F.C.S., has been appointed Analyst for the City and Liberty of Ripon.

FORD, A. V., L.K.Q.C.P.I., M.R.C.S.E., has been appointed one of the Surgeons to the Out-patient Department of the Royal Portsmouth Hospital, vice Dr. G. Turner, resigned.

FREW, W. S., M.B., C.M., has been appointed Junior Assistant Medical Officer at the Warwick County Asylum.

GRANT, J. D., M.D., C.M., has been appointed Assistant-Surgeon to the Royal Maternity Charity.

HALE, E. T., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Fourth District of the Bedminster Union.

HARKNESS, T. D., M.B., has been appointed House-Surgeon to the Inverness Northern Infirmary, vice D. S. Macdonald, M.B., resigned.

JACOB, J. B., M.B., L.R.C.S.I., has been appointed Medical Officer to the Fifth District of the Plympton St. Mary Union.

KING, G. M., L.R.C.P.Ed., L.R.C.S.I., has been appointed Junior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, vice H. E. Dixey, M.B., resigned.

LYONS, A. de C., M.B., C.M., L.R.C.P.I., M.R.C.S.E., has been appointed Medical Officer of Health for the Axbridge Rural Sanitary District. £100 per annum.

MELLER, C. M., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Carisbrooke District of the Isle of Wight Union.

NICHOLSON, M. E. B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Staniland District of the Halifax Union.

PIZEY, G., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Clevedon Urban Sanitary District. £30 per annum.

ROSS, J. J., M.D., L.R.C.S.Ed., has been appointed Consulting Physician to the Inverness Northern Infirmary.

SUTTON, Mr. F., has been reappointed Analyst for the County of Norfolk for one year.

SYMONS, C. G., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Hendred District of the Wantage Union.

THURSTON, E., L.R.C.P., L.S.A.L., has been appointed House-Surgeon to the Portland Town Dispensary, vice H. G. Taylor, M.B., resigned.

WALKER, L. N., L.F.P.S.G., L.M., L.S.A.L., has been appointed Surgeon to the Royal Mail s.s. *Asiatic*, in the Union Company's service.

Births, Marriages, and Deaths.

BIRTHS.

GARRETT.—On the 5th inst., at Kenmare House, Walsall, the wife of Charles Frederick Garrett, M.R.C.S.E., L.S.A.L., of a son.

KNAGGS.—On the 11th ult., at Mayaro, Trinidad, B.W.I., the wife of Robert H. E. Knaggs, M.R.C.S.E., of a daughter.

MCDONALD.—On the 26th February, at Hamilton, Tasmania, the wife of Wallis McDonald, M.R.C.S.E., of a daughter.

PHILPOT.—On the 2nd inst., at Moorcroft, Parkstone, Dorset, the wife of John R. Philpot, L.R.C.P.Ed., L.R.C.S.Ed., &c., of a son.

SANDERSON.—On the 4th inst., at Fairfield, Penrith, Lily, wife of T. D Sanderson, M.B., F.R.C.S.E., of a daughter.

MARRIAGES.

COOPER—SMYTH.—On the 4th inst., at the Parish Church, Hampstead, Thomas Henry Cooper, M.R.C.S.E., eldest son of the late Thomas Cooper, of Well-walk, Hampstead, to Emma Eliza, eldest daughter of Lake Dowel Smyth, M.D., of South Hill-park, Hampstead.

BUSHE—HOSMER.—On the 6th ult., at Malmesbury Parish Church, Cape Colony, Cecil J. L. Bushe, A.M.D., M.D., son of the late Rev. Charles Bushe, Rector of Castle Haven, County Cork, to Aileen Mary Beatrice, youngest daughter of the Rev. A. H. Hosmer, of Malmesbury.

DEATHS.

ALDER.—On the 8th inst., at East Dulwich, from the effects of Ashanti fever, Sydney Alder, Surgeon-Major, Army Medical Department, and late of the 23rd (Royal Welsh) Fusiliers, in his 51st year.

BERROW.—On the 3rd inst., at Milverton, Leamington, William Berrow, M.R.C.S.E., aged 83.

EDWARDES.—On the 5th inst., after a few days' illness, Conway Theodore Marrett Edwardes, M.D.A.S., eldest son of the late Conway Edwardes, Surgeon, of Batheaston, Somerset, dearly beloved and deeply regretted.

FOSTER.—On the 26th ult., at Eastlake-road, Brixton, John Frederick Foster, M.D., F.R.C.S., late of Hartley Wintney, Hants, in his 71st year.

JENKINS.—On the 1st inst., at his residence, Gower-road, Glamorganshire, Aneurin Jenkins, M.R.C.S.E., L.R.C.P.Ed., and L.M., eldest son of the Rev. E. Jenkins, of Loughor, aged 29.

JONES.—On the 11th inst., at 179, Brixton-road, S.W., Robertina, the dearly-loved wife of J. T. Jones, M.R.C.S.E., L.K.Q.C.P.I., L.M., aged 32, bitterly mourned.

MABERLY.—On the 23rd ult., at Menford-gardens, Wm. H. Maberly, M.D., F.R.C.S.E., aged 27.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 13th, 1880.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 7	30·16	N.E.	49	42	86	54	41	..	Cloudy,
,, 8	30·11	N.E.	48	42	93	58	42	..	Overcast
,, 9	30·29	N.E.	48	44	76	55	37	..	Cloudy
,, 10	30·13	N.E.	46	42	63	50	39	..	Overcast
,, 11	29·93	E.	49	46	94	60	45	..	Cloudy
,, 12	30·02	E.	53	47	95	62	46	..	Cloudy
,, 13	30·15	E.	53	49	102	69	41	..	Cloudy

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

SANITATION AT EDINBURGH.

WE have on previous occasions alluded to the good work done by the Edinburgh Sanitary Protection Association, which is now beginning the third year of its existence. This Society, numbering nearly 500 members, pays, by means of private subscriptions, a sanitary engineer to visit the houses of its members, to detect any fault, and suggest improvements or remedies. During the second year 400 houses were thus inspected. Every member's house has now been examined once, and some several times. The services of the Society have also been sought by several infirmaries, hospitals, and schools; while at St. Andrews a branch office has been started through the instrumentality of Professor Fleeming Jenkin and Dr. Mactier. The chief result of two years' experience is the necessity of repeated inspection. The water-supply and drainage are too often effected by a most complicated system of pipes, valves, and traps. However cunningly contrived and excellently executed, these were not proof against the effects of wear and tear. Stoppages due to carelessness or accident might at any moment occur, and the members of the Edinburgh Sanitary Association have consequently found plenty of work for their sanitary engineer, who has not only had to put their houses in order, but to return to them again and again to keep them in their necessary and proper condition. All this work, the result entirely of private initiative, is most commendable, and shows how widely sanitary knowledge has been diffused in the capital of Scotland.

M.B.—Bain's Logic and Mental and Moral Philosophy.

VACCINATION.

To the Editor of THE LANCET.

SIR,—It is the unfortunate custom of many private practitioners to vaccinate in two or three "places" in order to please their patients. Undoubtedly the practitioner is in a position of some difficulty. It has been my own custom to explain the necessity of producing four vesicular crops, but I have lost patients in consequence. What do you consider the duty of the vaccinator? Some prominent editorial remarks on this subject (which does not seem sufficiently understood by all practitioners—i.e., the necessity of four compound vesicles) would be of great advantage to the profession and to the public. Yours &c.,

May 8th, 1880. G. P.

*** The instructions issued by the Local Government Board, and previously by the Privy Council, for the guidance of public vaccinators in the performance of vaccination should be equally followed by all vaccinators whatever. It is unpardonable that any medical man who may have to vaccinate should be unacquainted with these instructions.—ED. L.

STIMULANTS IN WORKHOUSES.

THE question of the use of stimulants in West Derby Workhouse has been referred to a committee. It appears that the "drink bill" for the establishment now amounts to £2300 per annum. This seems a large sum, and has naturally excited the alarm of the guardians, one of whom alluded to the recent purchase by the Board of 30 hogsheads of brandy, and said it was no wonder that people were asking whether they were going to convert the workhouse into a gin-palace. The Chairman of the House Committee attributed the increased consumption of alcohol to the large number of "acute" cases in the house. The matter is also exciting attention in the Bristol Union, the guardians having appointed a committee to consider it. The question is one of more than local interest, and demands a stricter investigation than it has yet received.

Inquirer.—It is not customary for one commencing practice to advertise the fact in the public prints.

SMALL-POX HOSPITALS.

To the Editor of THE LANCET.

SIR,—I beg to invite your careful inspection of the accompanying map of the Brompton district of Kensington, of which I am the medical officer. It requires no explanation, as all that is requisite is mentioned on the map itself.

For nearly four years small-pox has been epidemic in a small area of my district, nearest the Fulham Small-pox Hospital, and nowhere else. In the adjoining parishes of Fulham and Chelsea the same thing has occurred. You will see by the map that by far the majority of cases have occurred within a radius of a little more than a quarter of a mile. You will also observe that the numbers decrease as the distance from the hospital increases. The question of how far concentrated small-pox poison (as it emanates from large hospitals) can travel is still *sub judice*. In my own mind I have not a shadow of doubt that it will travel much farther than it has been hitherto the custom to suppose. There can be no question, I think, that in my district at least the germs of the disease have emanated from the Fulham Small-pox Hospital. It is not a continuous epidemic, but one that varies directly with the number of patients in the hospital. When few or no cases are there, there are few or none in its immediate neighbourhood. Nor is this neighbourhood one to favour or invite an epidemic; it consists of a newly-built, clean, and well-drained number of houses and mansions. The only street in the Redcliffe estate that can make any pretension to having numerous inhabitants is the Ifield-road, and even that is inhabited by an extremely decent, clean, and orderly class, several occupying the whole house, and but few having less than two or three rooms. The most favourable locality in my district for the spread of an epidemic is, by far, that small triangular portion at its extreme eastern end, which consists of a number of old, ill-drained, over-populated streets, courts, and alleys, running out of a crowded main road. As you will see by the map, a few isolated cases have occurred there from time to time; but there has never been any spread of the disease from them. In each case the disease has been easily stamped out at once. Near the hospital nothing avails as long as there is anything like a large number of patients in it.

I have been between forty and fifty years medical officer of this district, and never before have had the least difficulty in stamping out epidemic outbreaks. Small-pox did not exist in the epidemic form in the neighbourhood of the hospital before its opening in March, 1877. Since then it has constantly raged there more or less. Within three days of May, 1878, cases were removed to the hospital from fifteen different streets, all at some distance from one another, but all within sight of the hospital; in other words, several people at some distance from one another inhaled almost at the same time small-pox germs. This fact does not look like the disease spreading from house to house, but points, I think, most conclusively to one great infecting centre. At that time, as far as I can ascertain, the hospital contained more patients than it has before or since, and we may naturally conclude that the air coming from it was more saturated than usual with small-pox particles.

I think by means of the map, and by the few remarks I have been able to condense in this communication, I have shown at least sufficient grounds for an impartial investigation. If, as I am myself fully convinced, small-pox hospitals are a source of danger, not only to those living immediately under their walls, but also to those at some distance removed from them, it is surely the duty of the Asylum Board either to remove them to a safer distance, or to adopt some such plan as I suggested some time ago—namely, causing all the air from the hospital to pass through a furnace, and be thoroughly burnt before it be allowed to carry, as it now does, disease, misery, and death to all coming within its influence.

The Fulham Small-pox Hospital is most unfortunately placed. It lies in a hollow, the former site of the old open Counter's Creek Sewer. On each side of it are two numerously attended running and athletic sports' grounds. The patients in the hospital can be seen watching the sports out of the windows. The Metropolitan Railway and its branch to Putney run close under its walls. What more efficient carriers of the disease could possibly be conceived, not only to other parts of the metropolis, but also to all other parts of the kingdom. Yours &c.,

Fulham-road, May 4th, 1880. FRANCIS GODRICH.

*** See remarks on this subject in the Local Government Department' page 780 - ED. L.

THE WOURALI POISON.

MR. MONTAGUE FLINT, F.R.G.S., in *Temple Bar* for May, gives an account of the circumstances attending the preparation of wourali by the Macusis of the Canuca Mountains. The people of this tribe say they are the sole patentees of this subtle and renowned poison; and even of the Macusis, only a few know how to prepare it. It is accounted a great secret, and is imparted from father to son or next male heir when the former is believed to be at the point of death. The process of manufacture is carried on on comparatively rare occasions, and is surrounded with great solemnity. For ten days previous to the first boiling down, all the men who are to take part in it are supposed to fast, and all the women of the tribe are carefully kept out of the way. The long arrows the natives use with the bow are sometimes dipped in the poison, and a small tube of bamboo placed over the tip to prevent anyone being accidentally pricked by it. The blow-pipe arrows or shafts, mentioned by Waterton and others, are thin slips of hard wood, made from the stem of the leaf of the cucurite palm. They are generally from twelve to eighteen inches in length, sharpened at one end, and wrapped round at the other with common cotton, or with the brown silklike cotton of the silk-cotton tree. The sharp points are dipped in the wourali, which is of the colour and consistency of melted glue. These they carry in a wicker case, shaped like a dice-box, but larger, very closely woven, and with a leather top and bottom, the top opening on a leathern hinge. The length of the blow-pipe itself varies from twelve to fifteen feet. Thus equipped, they range through the forests, shooting monkeys, birds, or such other animals as come in their way. The only antidote to the poison they are in the habit of using is a kind of earth-worm, well known to them, and common enough in these parts. Should any of them be so unfortunate as to get scratched, a hasty search is made for some of these earth-worms, which are pounded together, a portion being used to anoint the wound, and the rest swallowed by the patient.

Dr. Reginald E. Thompson.—The paper will be inserted shortly.

AMPUTATION AT THE HIP-JOINT.

To the Editor of THE LANCET.

SIR,—In your issue of the 1st inst. a report is given of the proceedings of the Clinical Society on April 23rd, at which meeting Dr. Stokes, of Dublin, read a paper, relating a case of amputation at the hip-joint for disease. In the comments made by the various speakers, the question *as to the operation performed* was never raised, it being tacitly admitted that the "flap operation" as done by Dr. Stokes was the most satisfactory—at least I infer that, as no one present expressed any doubt about the matter. All the speakers agreed as to the risk in this operation from blood loss, and that, with the exception of Mr. Bryant, it came chiefly from the posterior flap.

Why was not Mr. Farneaux Jordan's method considered preferable? In the last year I removed in this way four limbs at the hip-joint successfully (one died subsequently from visceral lesions), and in each one the object was to give a chance of life to a patient practically doomed. Three were after failure of excision; the other in a case where this operation was not deemed advisable on account of the extent of the disease. In the first case Esmarch's band was applied to control the bleeding, but, proving ineffectual, the fingers were used instead. The remaining cases were efficiently dealt with in this simple way, the blood loss in any single case not exceeding two ounces. If the older (flap) method be adopted, I quite recognise the utility of Mr. Davy's lever, as pressure on the common femoral would not prevent loss from the gluteal vessels. But why substitute for a comparatively simple and bloodless procedure one which entails much anxiety as to the amount of blood lost and handling per rectum? Hitherto, I believe, no ill effects have been caused by this manipulation in the rectum. Still, I cannot think it desirable unless absolutely necessary, and if Mr. Jordan's plan be adopted there is no need for its use.

In conclusion, I may say that, by your kind permission, two of the four cases have already been published.

Your obedient servant,

LEWIS W. MARSHALL, M.D.,
Surgeon to the Nottingham Children's Hospital.

Nottingham, May 2nd, 1880.

N.B.—Ages of children:—One, two years eight months; one, five years six months; two, seven years.

An Old Subscriber.—If our correspondent would condense his letter within a reasonable compass, we should gladly allow him to ventilate the grievances of his department, and the more so as he has stated them temperately. He seems, however, in some of his remarks to have forgotten that the recent changes were made in accordance with the suggestions of an officer of the Indian service, and did not emanate from the War Office.

D. J.—None but medical men appointed under the Factories and Workshops Acts can officially examine the children engaged in workshops, and sign the books required to be kept by employers.

Mr. F. M. Robertson.—See Liveing's Handbook of the Diagnosis of Skin Diseases, p. 44.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE following were the questions submitted to the candidates at the preliminary examination for the diploma of Membership of the Royal College of Surgeons on the 7th instant, when, in pursuance of the new regulations, they were required to answer only four out of the six questions, both on Anatomy and Physiology. The following were the Anatomical questions:—

1. Describe the inferior maxilla, and state the changes it undergoes from infancy to old age.
2. Describe the inferior radio-ulnar and the radio-carpal articulations; state the movements of which they are capable, and name the muscles by which these movements are effected.
3. Describe the course, relations, and anastomoses of the external circumflex artery, and give the dissection necessary to expose it.
4. Describe the entire lachrymal apparatus.
5. Describe the membranes of the spinal cord, and mention the points of difference between them and the membranes of the brain.
6. Describe the course and relations of the inferior vena cava, and name its tributaries.

The following were the questions on Physiology:—

1. Describe the structure of the mucous membrane of the stomach. Give the composition and action of the gastric juice.
2. What are the essential parts of a secreting gland? What circumstances modify secretion? Illustrate your statements by reference to the salivary and sudoriparous glands.
3. Describe the structure of the urinary bladder. What muscles and nerves are engaged in the act of micturition?
4. Describe the structure and functions of the vocal cords. Enumerate the intrinsic muscles of the larynx, giving the nerve-supply and action of each.
5. Give the structure and connexions of the valves of the heart. What are their functions?
6. Describe the structure of striated muscle. Give the physical and chemical changes which accompany the act of contraction.

Enquirer cannot do such things legally on the strength of the qualification mentioned. He could not, even in Canada, with propriety use the title named.

Dr. A. Sheen.—We shall be glad to see the article mentioned.

Felix.—The time has not been announced.

FOREIGN BODIES IN THE WINDPIPE.

To the Editor of THE LANCET.

SIR,—Dr. G. V. Poore, in your last week's "Mirror," brought forward some cases from the throat department of University College Hospital, one of which related to the impaction of a cockle-shell in the trachea of a boy immediately below the vocal cords. I do not gather from your report how long the boy was under Dr. Poore's care, but that he was able to diagnose the presence of the shell on the sixth day after the accident, and that on the following day he had the opportunity of seeing the shell in its position below the cords is evident.

I should like to raise the question whether it is advisable, on diagnosing the presence of a foreign body in the larynx or trachea, to delay taking immediate steps for the removal of that body. I am of opinion that delay is most unwise. Should in special cases delay be unavoidable, I would have the case watched, so that if necessary the trachea might be opened immediately. For myself I go further. In examining such cases I have tracheotomy instruments ready at hand. This may be over-solicitude on my part, and therefore I only wish to raise the question whether it is not advisable in the case of a foreign body in the windpipe to take measures at once for its removal, as at any moment displacement of the foreign body may take place, and fatal dyspnœa speedily occur.

Yours faithfully,

May 10th, 1880. W. PUGIN THORNTON.

H. G. D.—1. (*a*) The Superintending Inspectors of Factories attached to the Home Office; (*b*) the Board of Guardians; (*c*) the Sanitary Authority, urban or rural, as the case may be.—2. Consult Wilson's Handbook of Hygiene, published by J. and A. Churchill.

M. D. Lond.—Yes.

THE LOCAL TREATMENT OF ERYSIPELAS.

To the Editor of THE LANCET.

SIR,—I read with considerable interest Mr. Lenihan's letter on the above subject, which appeared in your last week's issue. The method described by Mr. Lenihan, and spoken of by you as "the revival of an old procedure," was, I believe, introduced by my father some thirty years ago, and is explained by me in a paper, "On the External Use of the Tincture of Iron in Erysipelas and other forms of Local Inflammation," published in the first volume of the *Medical Gazette* for 1875.

Yours faithfully,

Leeds, May 10th, 1880. CLARENCE FOSTER, M.R.C.S.

To the Editor of THE LANCET.

SIR,—If Mr. Lenihan will refer to the *Journal of Mental Science* for July, 1858, he will there see a short paper by the Medical Superintendent of the Dorset Asylum (Mr. Symes), who used tr. ferri sesquichloridi externally, and with the best results, and I know he continues to use it whenever a case of erysipelas occurs.—Yours &c.,

May 10th, 1880. AMICUS.

VITAL STATISTICS OF ONTARIO.

THE annual report of births, marriages, and deaths in Ontario has just been published. The births during 1879 were 40,236; the deaths, 17,808; and the marriages, 12,729. Pulmonary diseases would appear to be the most prevalent maladies in the province. As to occupations, farming shows the most favourably; whilst sempstresses, as a class, are the most unhealthy. Bookkeepers and clerks also exhibit a large mortality.

E. H. M. had better apply for the advice desired to a Warden of one of the City Companies.

Mr. G. W. Wigner.—We shall be glad to receive the analyses.

ON THE VALUE OF ARTIFICIAL FEEDING.

To the Editor of THE LANCET.

SIR,—The following is not only an uncommon case in itself, but seems to illustrate the value of artificial feeding:—

William H——, aged sixty-six years, was admitted into this infirmary on March 9th. He had been out of work for many months, and had been much depressed in mind. Of late he had been generally feeble, slow of comprehension, clumsy in the use of his fingers, and for three months had been deaf in the right ear. On March 1st he had had what his friends looked on as a fit, but what from his account appeared to have been a sudden attack of giddiness, with great tinnitus in the right ear, and complete helplessness. Some time afterwards it was discovered that he was unable to swallow, and it was on account of this difficulty, which had kept him without food for nearly a week, that he was brought to the infirmary. On examination, the patient was found to be very feeble, and, though able to move all his limbs, was unable to stand or even to sit up. He was constantly giddy, but much worse if he attempted to move. The grip with both hands was good, and fairly equal, though developed slowly. Some paresis of the left side of the face was observed, with ptosis, and slight external strabismus on the same side, the left pupil being smaller than the right. The uvula could be tickled without causing retching, and, curiously enough, was observed to be drawn towards the left. There was no accumulation of mucus on the tongue and palate; the face was somewhat flushed, and the bowels confined. The slightest attempt to swallow fluid produced the greatest distress, causing cough and tracheal râles, and evidently putting him in great danger of suffocation. The fluid did not return through the nose, the pharynx seeming to be quite helpless, and it was by the cough alone that he cleared his throat, the cough forcing the mucus &c. past the paralysed pharynx into the cavity of the mouth, which was comparatively unaffected. The gravity of the case clearly depended on the paralysis preventing the ingress of food; and on the case being admitted into the infirmary, under the care of Mr. S. Charles Smith, the patient was ordered to be fed with the stomach-pump twice daily. He remained as an in-patient up to April 3rd, during which time he was regularly fed on beef-tea, thickened with pea-flour, and on milk and corn-flour. About a week after his case came under treatment, his condition was observed to improve, the power of deglutition gradually returning, so that first he became able to suck oranges slowly, then to take milk and egg, then smooth porridge, and ultimately any kind of solid food. On being discharged, he still had slight ptosis and double vision. He was also giddy, and had a peculiar weakness of the muscles of the trunk, so that, though able to move all his limbs, he could not even sit up without supporting himself by neighbouring objects. The morbid process in the brain, whatever its nature, whether hæmorrhage or softening, or both, no doubt remains untouched; but the particular symptom which was immediately dangerous to life has passed away. All sudden cerebral diseases seem for a time to involve wider areas than are permanently injured, and in this case it was fair to hope that the pharyngeal paralysis might not be in the main track of the lesion, but might be one of those side effects which can be recovered from, if the patient can only be kept alive meanwhile, which here was successfully accomplished by the aid of the stomach-pump.

I remain, Sir, yours truly,

THOMAS HAMMOND, L.R.C.P. Lond., &c.

Halifax Infirmary, May, 1880.

ECZEMA.

To the Editor of THE LANCET.

SIR,—In answer to the inquiry of "M.R.C.S." about a remedy for a case of eczema rubrum, I beg to state that I had last year a most obstinate case of that disease, which had been drugged almost with every remedy in the B.P., without success. As a last resource, and as I knew that every skill in the administration of drugs had been exercised, I adopted the following treatment:—Every night the affected parts (which really was nearly all over the body) were swathed in linen cloths dipped in oil and carbolic acid (1 to 60); over this was put cotton-wool, and a bandage applied lightly over all. In the morning I had the body completely washed with carbolic soap and water, and the carbolic acid and oil reapplied. This was continued for a fortnight, the patient keeping his bed. After this he was so much better that I only had the remedy applied at night. After morning bath he put his clothes on, without any local application, but taking a carbolic steam three times a week. The result of this treatment after two months was a complete cure, with great gratitude of the patient.

If this treatment can be carried out by "M.R.C.S." with success, I shall be very glad. Yours obediently,

May 6th, 1880. EDWD. M. OWENS.

Volunteer Surgeon.—The adjutant is right. The cocked-hat in full dress and the forage-cap in undress are the coverings for the heads of medical officers, as established by the Dress Regulations of the Army.

R. H. M.—Yes. The matter certainly calls for notice. Serious issues may be involved.

ON SPLITTING OF THE TONGUE WITH A VIEW TO FACILITATING OPERATIONS AT ITS BASE.

To the Editor of THE LANCET.

SIR,—The following case is of interest in connexion with the paper by Mr. Morrant Baker in your issues of the 10th and 24th of April:—

Francis C——, aged twenty-five, sent to me by Mr. Cran, of Salford, was admitted to the Manchester Royal Infirmary in October, 1878. He had been suffering for about two months from a tumour which was growing at the back of the tongue. There was no pain, but respiration and deglutition were becoming increasingly difficult, and the voice resembled that in a case of enlarged tonsils. On examination, the tumour was found to occupy the hollow between the tongue and the epiglottis. It was at once brought into view on the patient widely opening his mouth. In form it was rounded, with a slightly nodulated surface. It was softly elastic to the touch, and of a greyish-white colour, and it was diagnosed as a lymphoma. After a little observation of the case, it became evident that the growth was increasing somewhat rapidly, and accordingly, after a consultation with my colleagues, I determined to endeavour to remove it.

On October 19th a preliminary tracheotomy was performed, the principal operation being undertaken a week afterwards. The main difficulty in the case appeared to be the satisfactory exposure of the tumour. At first I thought of dividing the cheek from the angle of the mouth to the angle of the jaw on one side, sawing through the inferior maxilla behind the teeth, and forcibly pulling the tongue aside; but it did not appear that this procedure would adequately serve my purpose, and, after fully considering the subject, I determined on the following operation:—The chin, including the inferior maxilla, was divided in the middle line, after the manner of Mr. Syme, the incision being prolonged backwards through the floor of the mouth in the direction of the hyoid bone. Two threads were then run through the tongue near its tip, one at each side. I then passed a bistoury from below upwards, in front of the growth through the median raphe of the tongue, and, cutting forwards, readily split the organ in two. Mr. Whitehead, who kindly assisted me, then held the two halves apart while I completed the section backwards to the margin of the tumour. In this manner a most complete view was obtained of the parts implicated. The tumour was friable, and broke down under the finger; but I believed I succeeded in digging out the whole of it from its bed, together with some of the surrounding muscular and cellular tissue. It was about the size of a large walnut. The lingual artery of one side was divided; but, with this exception, there was no trouble from hæmorrhage. The two halves of the tongue were then stitched together with silk, the jaw fastened with wire passed through holes drilled at two levels, and the superficial parts brought together in the usual way. The tracheotomy-tube was left in as a prudential measure.

A few hours after the operation the patient was in an alarmingly collapsed condition. He soon recovered himself, however, under the administration of stimulants, and until his discharge he progressed perfectly satisfactorily. In a few days the tracheotomy-tube was taken out, and the stitches removed from the soft parts.

The patient left the infirmary on Nov. 19th, the wires in the bone being still left in their place. The relief of symptoms obtained by the operation was very evident, as he rapidly improved in appearance. Unhappily, however, this relief was of short duration. Soon after he left the infirmary the tumour began to grow again, and he succumbed three months afterwards.

On microscopic examination, the tumour proved to be composed of lymphoid tissue. Possibly, situated as it was, where a free removal of the surrounding parts was impracticable, it should not have been interfered with. My present object, however, is to direct attention to the method of operation. The exposure of the base of the tongue, and the facility with which the manipulations of the parts could be carried on, were all that could be desired, and indeed no real difficulty was experienced in the whole course of the operation.

I am, Sir, yours &c.,

JAMES HARDIE,

Assistant-Surgeon to the Royal Infirmary, Manchester.

Manchester, May, 1880.

LOCOMOTOR ATAXY AND PROCREATIC POWER.

To the Editor of THE LANCET.

SIR,—I think the following facts are of interest to the medical profession:—

In May, 1873, John A——, aged thirty-one, came under my care suffering from locomotor ataxy, the disease being at the time well marked. He informed me that it had been "coming on for the last eighteen months." He was a married man, and the father of one child. In July, 1879, his wife gave birth to a male child, and in February, 1880, the man died, he having been bedridden for some months prior to his death.

I have no reason to doubt the parentage of the child in this case, and I may mention that it bears a very marked resemblance to its deceased parent. I am, Sir, yours faithfully,

Exeter, May 8th, 1880. CHAS. E. BELL.

ERRATUM.—In last week's annotation on Chian Turpentine in Cancer, p. 730, col. 2, line 7 from bottom, for "imperative," read *comparative*.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. B. Yeo, London; Mr. T. Bryant, London; Mr. Teevan; Dr. R. E. Thompson; Dr. Reid, Newbiggin-by-Sea; Mr. Bateman, Tenterfield; Dr. Oliver; Mr. P. Thornton; Mr. Blackett; Mr. Mumby; Mr. Young, Sherborne; Dr. J. Williams; Dr. Brushfield; Dr. S. Norton, West Malling; Dr. Garstang, Blackburn; Dr. Weymouth, Mill-hill; Mr. Withington, Doncaster; Mrs. Jack; Mr. Mundy, Edinburgh; Mr. Wyles, Allesley; Mr. Oxley, Liverpool; Mr. Barton; Mr. Count; Dr. W. Edis, London; Dr. Hooper; Dr. A. L. Browne; Mr. Gardiner; Mr. M'Munn, Belfast; Mr. C. Foster, Leeds; Mr. Birt; Dr. Dana, New York; Dr. Laseron; Mr. Graham; Mr. Timothy; Mr. Layton, Kelso; Dr. Cavafy, London; Rev. W. Walker, Reading; Mr. Owens, Leamington; Dr. J. Lowe, King's Lynn; Mr. Binney; Dr. Davidson; Dr. Newcombe, Gateshead; Mr. Barnard, Edinburgh; Mr. Denham, Wimbledon; Dr. Bell, Exeter; Mr. Winfield, Manchester; Dr. Snow, London; Dr. G. W. Potter; Dr. Neal; Dr. Ryley, Taunton; Mr. Cooke; Mr. Heaton, Manchester; Mr. Harding, Westgate-on-Sea; Mr. French; Mr. Manners, Rugeley; Messrs. Shepherd and Co.; Mr. Jenkins, Loughor; Mr. R. Freeman, London; Messrs. Keith and Co. Edinburgh; Mr. Stewart, Southport; Dr. Ahmed, Doomka, India; Dr. Nesham, Newcastle-on-Tyne; Mr. Hardman, Blackpool; Mr. Ward, Burnley; Mr. Hudson, Cheltenham; Mr. Pearce, Brierley Hill; Mr. Dufton, Tuxford; Mr. Coulton, Lynn; Mr. Elliott, W. Australia; Mr. Morlew, Blackburn; Mr. Morrison, Hampworth; Mr. Crosse, Norwich; Dr. Barker, Bombay; Dr. Tatham, Salford; Dr. L. Down, London; Mr. Norton, Devonport; Mr. Nixon; Mr. T. R. Beckett; Mr. Hope, W. Australia; Dr. Arciniega, Cairo; Dr. Paterson, Grantham; Surgeon-Major King; Mr. Wigner, London; Dr. Dreschfeld; Surgeon-Major H. W.; Alpha; The Secretary of the Ladies' Sanitary Association; G. M. A.; Felix; E. H. M.; M.B.; Volunteer Surgeon; G. P.; Doctor, New Zealand; Amicus; H. G. D.; A Sussex Clergyman; Medicus; Dr., 1880; M.D.; Militia; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Wright, Wellingborough; Mr. Gould, Hatherleigh; Mr. Parry, Ferndale; Mr. Hordley, Stoke-on-Trent; Hr. Hacket, Leeds; Mr. Townshend, Seacombe; Mr. Whitlock; Dr. Glissan, St. George's; Mr. Bryant; Mr. Lowe; Messrs. Cadbury; Dr. Blair; Messrs. Mottershead, Manchester; Mr. Praeger, Fence House; Mr. Sach; Mr. Grant, Birmingham; Mr. Horne, York; Mr. Nicoll, Tomintoul; Mr. Knight, Whitehaven; Mr. Martin, Paisley; Mr. M'Bride, Stapleton; Dr. Archer, Liverpool; Mr. Bash, Nottingham; Dr. Maskew; Dr. West, Launceston; Mr. Philipps, Exeter; Mr. Callard, London; Miss Arnim, London; Surgeon; LL.D.; M.D.; X. Y.; Dispenser Delta; H. G.; M. Y. B.; K. O.; Omega; H. H. B.; J. M. B.; Sanitas; M. B., Rickmansworth; Medicus, Sheffield; Cymro, Edinburgh; H. M., Brixton; Dr., Middleton; G. L.; Medicus, Leicester; T. H. Y., Leamington; M.D., Eastbourne; W. E., Old Charlton; M.D., Liverpool; Wall, Wigan; Beta, London; J. C.; Thom, Newport; &c.

Night and Day, Students' Journal, Metropolitan, Hampshire Express, Surrey Advertiser, Hastings and St. Leonards Times, Renfrewshire Independent, Deutsche Medicinal-Zeitung, Tewkesbury Register, Warehousemen and Drapers' Trade Journal, Bradford Observer, Irish Banker, Colonies, Paisley Daily Express, Walsall Free Press, Clifton Chronicle, Eddowes' Shrewsbury Journal, The Newsvendor, Nouvelle Chronique de Jersey, Shields Daily Gazette, Paignton and Newton Directory, Brighton Guardian, Ilkley Free Press, Ross Gazette, &c., have been received.

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Medical Diary for the ensuing Week.

Monday, May 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

Tuesday, May 18.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. Fiske, "On American Political Ideas."

PATHOLOGICAL SOCIETY OF LONDON. — 8½ P.M. The following Specimens will be shown:—Specimens illustrating the Development of Cancer and the Histology of Painful Subcutaneous Tumour; Recurrent Mammary Tumour; Aortic Aneurism opening into the Right Auricle; Cirrhosis of Liver in a Child; Dermoid Tumour from the Rectum; Mixed Cystic Oxide and Lime Oxalate Calculus; Left Persistent Vena Cava; Aneurism of the Abdominal Aorta and Right Common Iliac Artery, communicating with the Inferior Vena Cava; Kidneys showing the Cystic Degeneration of Adults; Congenital Syphilitic Ulceration of the Tongue; three Cases of Sarcomatous Growths in both Kidneys; Congenital Malformation of the Heart; Tumour of the Face; Remarkable Renal Concretion; Cancer surrounding the Colon; a Double Kidney; &c. &c.

Wednesday, May 19.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M. — 5 P.M. Mr. F. R. Fisher, "On Club Foot."

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY. — 7½ P.M. Council.—8½ P.M. Casual Communications from the President and others.—Mr. Napier will exhibit the Polyscope for illuminating the Mouth by Electric Light; and also a new Apparatus for the Administration of Nitrous Oxide without the risk of the Gas running short.

Thursday, May 20.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. T. W. R. Davids, "On Buddhist Sacred Books."

HARVEIAN SOCIETY. — 8½ P.M. Mr. G. P. Field: "An Analysis of 500 Cases of Perforation of the Membrana Tympani."—Dr. Mahomed, "On Bronchitis."

Friday, May 21.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION. — 8 P.M. Evening Meeting. — 9 P.M. Mr. Spottiswoode, "On Electricity in Transitu."

Saturday, May 22.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor H. Morley, "On the Dramatists before Shakespeare."

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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